| 1 | WILLIAM L. ANTHONY, JR. (State Bar No. 1 wanthony@orrick.com | 166026) |
|----|---|--|
| 2 | MATTHEW H. POPPE (State Bar No. 177854) mpoppe@orrick.com |) |
| 3 | ZHENG LIU (State Bar No. 229311) jenliu@orrick.com | |
| 4 | ORRICK, HERRINGTON & SUTCLIFFE LLP | |
| 5 | 1000 Marsh Road Menlo Park, California 94025 | |
| 6 | Telephone: +1-650-614-7400 Facsimile: +1-650-614-7401 | |
| 7 | Attorneys for Defendant VARIAN MEDICAL SYSTEMS, INC. | |
| 8 | UNITED STATES | DISTRICT COURT |
| 9 | | ICT OF CALIFORNIA |
| 10 | | |
| 11 | SAN FRANCI | SCO DIVISION |
| 12 | | |
| 13 | UNIVERSITY OF PITTSBURGH OF THE COMMONWEALTH SYSTEM OF HIGHER | Case No. CV 08 2973 |
| 14 | EDUCATION d/b/a UNIVERSITY OF PITTSBURGH, a Pennsylvania non-profit | REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF VARIAN'S |
| 15 | corporation (educational), | MOTION TO TRANSFER ACTION |
| | Plaintiff, | TO U.S. DISTRICT COURT FOR THE WESTERN DISTRICT OF |
| 16 | v. | PENNSYLVANIA |
| 17 | VARIAN MEDICAL SYSTEMS, INC., a | Date: August 1, 2008 Time: 9:00 a.m. |
| 18 | Delaware corporation, | Courtroom: 7, 19th Floor |
| 19 | Defendant. | |
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| 1 | Defendant Varian Medical Systems, Inc. ("Varian") respectfully requests that this Court | | |
|----|---|--|--|
| 2 | take judicial notice of the following documents pursuant to Federal Rule of Evidence 201 in | | |
| 3 | support of Varian's Motion to Transfer Action to the U.S. District Court for the Western District | | |
| 4 | of Pennsylvania. | | |
| 5 | 1. The Complaint in <i>University of Pittsburgh v. Varian Medical Systems, Inc.</i> , Case | | |
| 6 | No. 2:07-cv-00491-AJS, in the United States District Court for the Western District of | | |
| 7 | Pennsylvania (the "Penn. Case") dated April 13, 2007. A true and correct copy of this document | | |
| 8 | is attached hereto as Exhibit A. | | |
| 9 | 2. Varian's Answer and Counterclaim dated May 14, 2007 in the Penn. Case. A true | | |
| 10 | and correct copy of this document is attached hereto as Exhibit B. | | |
| 11 | 3. The Case Management Order dated June 4, 2007 in the Penn. Case. A true and | | |
| 12 | correct copy of this document is attached hereto as Exhibit C. | | |
| 13 | 4. The Order of Court dated June 29, 2007 in the Penn. Case. A true and correct | | |
| 14 | copy of this document is attached hereto as Exhibit D. | | |
| 15 | 5. The Order dated September 6, 2007 in the Penn. Case. A true and correct copy of | | |
| 16 | this document is attached hereto as Exhibit E. | | |
| 17 | 6. Exhibit F is intentionally omitted. | | |
| 18 | 7. The Order of Court Re: Deposition Schedule dated October 5, 2007 in the Penn. | | |
| 19 | Case. A true and correct copy of this document is attached hereto as Exhibit G. | | |
| 20 | 8. The Order dated October 15, 2007 in the Penn. Case. A true and correct copy of | | |
| 21 | this document is attached hereto as Exhibit H. | | |
| 22 | 9. Exhibit I is intentionally omitted. | | |
| 23 | 10. The Order Adopting Special Master's Report and Recommendation (Doc. No. | | |
| 24 | 254) in Part; and Granting Defendant's Motion for Summary Judgment for Lack of Standing | | |
| 25 | (Doc. No. 127) dated April 30, 2008 in the Penn. Case. A true and correct copy of this document | | |
| 26 | is attached hereto as Exhibit J. | | |
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| 1 | 11. The Order of Court Denying Plaintiff's Emergency Motion to Identify Additional |
|----|--|
| 2 | Extrinsic Evidence dated November 29, 2007 in the Penn. Case. A true and correct copy of this |
| 3 | document is attached hereto as Exhibit K. |
| 4 | 12. The Order Denying Plaintiff's Motion to Join Carnegie Mellon University dated |
| 5 | December 14, 2007 in the Penn. Case. A true and correct copy of this document is attached |
| 6 | hereto as Exhibit L. |
| 7 | 13. The Order of Court Granting Doc. No. 183 dated January 30, 2008 in the Penn. |
| 8 | Case. A true and correct copy of this document is attached hereto as Exhibit M. |
| 9 | 14. The Order of Court Granting in Part Doc. No. 186 dated January 30, 2008 in the |
| 10 | Penn. Case. A true and correct copy of this document is attached hereto as Exhibit N. |
| 11 | 15. The Order of Court Denying Defendant Varian Medical Systems, Inc.'s Motion to |
| 12 | Compel Production of Documents Responsive to Varian's Second Request for Production of |
| 13 | Documents and Document Subpoenas ('192 Motion) (Doc. No. 192) dated January 30, 2008 in |
| 14 | the Penn. Case. A true and correct copy of this document is attached hereto as Exhibit O. |
| 15 | 16. The Supplemental Order Denying in Part Motion to Compel (Doc. No. 228) dated |
| 16 | February 15, 2008 in the Penn. Case. A true and correct copy of this document is attached hereto |
| 17 | as Exhibit P. |
| 18 | 17. The Order of Court Denying Defendant Varian Medical Systems, Inc.'s Motion for |
| 19 | Leave to File Amended Answer and Counterclaim (Doc. No. 236) dated February 15, 2008 in the |
| 20 | Penn. Case. A true and correct copy of this document is attached hereto as Exhibit Q. |
| 21 | 18. The Order of Court Denying Plaintiff's Motion for Reconsideration of the Court's |
| 22 | Findings of Contempt (Doc. No. 284) and Granting in Part and Denying in Part Defendant Varian |
| 23 | Medical Systems' Motion for Contempt Sanctions (Doc. No. 286) dated April 17, 2008 in the |
| 24 | Penn. Case. A true and correct copy of this document is attached hereto as Exhibit R. |
| 25 | 19. The Judgment dated June 16, 2008 in the Penn. Case. A true and correct copy of |
| 26 | this document is attached hereto as Exhibit S. |
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Superior Court of Cal., No. 08-CV-0208, 2008 U.S. Dist. LEXIS 16867, at *14-*15 & nn. 4-5

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(E.D. Cal. March 5, 2008) (taking notice of Superior Court docket sheet); San Luis & Delta-Mendota Water Auth. v. Badgley, 136 F. Supp. 2d 1136, 1146 (E.D. Cal. 2000) (a court may take judicial notice of a document filed in another court to establish the fact of such litigation and related filings).

Consequently, the Court may take judicial notice of Exhibit Y.

В. This Court Should Take Judicial Notice of Court Rulings in the Prior Patent Action Between the Parties in the Western District of Pennsylvania (Exhibits C-U)

It is appropriate for the Court to take judicial notice of the entry of a court order or decision in another action. Overstreet ex rel. NLRB v. United Bhd. of Carpenters & Joiners of Am., Local 1506, 409 F.3d 1199, 1204 (9th Cir. 2005) (taking judicial notice of an administrative law judge's decision); Papai v. Harbor Tug & Barge Co., 67 F.3d 203, 207 (9th Cir. 1994) (judicial notice is properly taken of orders and decisions made by other courts or administrative agencies); Conopco, Inc. v. Rol Int'l, 231 F.3d 82, 86-87 & n.3 (2d Cir. 2000) (taking judicial notice of final state trial court judgment and notice of appeal in related case); 321 Studios v. MGM Studios, Inc., 307 F. Supp. 2d 1085, 1107 (N.D. Cal. 2004) (taking judicial notice of a court order granting a preliminary injunction); Asustek Computer, Inc. v. Ricoh Co., Ltd., No. C 07-01942, 2007 U.S. Dist. LEXIS 86302, at *3 (N.D. Cal. 2007) (taking judicial notice of summary judgment rendered by another district court in patent infringement proceeding); Johnson v. Alameda County, No. C 05-3367, 2007 U.S. Dist. LEXIS 73190, at *2 (N.D. Cal. 2007) (taking judicial notice of a criminal minute order and judgment).

Consequently, the Court may take judicial notice of Exhibits C through U, inclusive.

C. This Court Should Take Judicial Notice of Pleadings in the Prior Patent Action Between the Parties in the Western District of Pennsylvania (Exhibits A, B, V, X

It is appropriate for the Court to take judicial notice of the filing of a court pleading, and its entry in court records. Beazley v. Fujii, No. 04-56237, 2007 U.S. App. LEXIS 526, at *2 & n.1 (9th Cir. Aug. 18, 2006) (judicial notice of complaint); Hunt v. Check Recovery Sys., 178 F. Supp. 2d 1157, 1160 (N.D. Cal. 2007) ("Judicial notice may be taken of "adjudicative facts" such as court records, pleadings and other facts not subject to reasonable dispute and either "generally

| known" in the community or "capable of accurate and ready determination by reference to |
|---|
| sources whose accuracy cannot be reasonably questioned."); Shropshire v. Fred Rappoport Co., |
| 294 F. Supp. 2d 1085, 1091 & n.1 (N.D. Cal. 2003) (taking judicial notice of the documents and |
| pleadings filed in a state court action); Western Federal Sav. & Loan Ass'n v. Heflin Corp., 797 F. |
| Supp. 790, 792 (N.D. Cal. 1992) (taking judicial notice of an entire state court action file |
| involving a judicial foreclosure, including both complaint and answer); Rayon-Terrell v. Contra |
| Costa County, No. C-02-2759, 2004 U.S. Dist. LEXIS 22028, at *3 (N.D. Cal. 2004) (taking |
| judicial notice of defendant's answer); Piper v. RGIS Inventory Specialists, Inc., No. C-07-00032, |
| 2007 U.S. Dist. LEXIS 44486, at *3 & n.1 (N.D. Cal. 2007) (taking judicial notice of pleadings in |
| various actions). |
| Consequently, the Court may take judicial nation of Exhibits A. D. V. and V. (for the fact |

Consequently, the Court may take judicial notice of Exhibits A, B, V, and X (for the fact that these documents were filed and that the statements contained therein were made to the court in the Penn. Case, if not for the truth of those statements).

D. This Court Should Take Judicial Notice of the Notice of Appeal Filed by the University of Pittsburgh in the Prior Patent Action Between the Parties in the Western District of Pennsylvania (Exhibit W)

It is appropriate for the Court to take judicial notice of a notice of appeal filed in another case. *Conopco, Inc. v. Rol Int'l*, 231 F.3d 82, 86-87 & n.3 (2d Cir. 2000) (taking judicial notice of final state trial court judgment and notice of appeal in related case); *Corder v. Gates*, 104 F.3d 247, 248 & n.1 (9th Cir. 1996) (granting defendant's motion for the court to take judicial notice of briefs and records in two earlier appeals); *Ervin v. Judicial Council of Cal.*, No. C 06-7479 CW, 2007 U.S. Dist. LEXIS 39554, at *3 & n.2 (N.D. Cal. May 18, 2007) (taking notice of an appeal in another proceeding); *United States v. Beattie*, No. C-06-3537, 2007 U.S. Dist. LEXIS 40115, at *2 (N.D. Cal. May 14, 2007) (taking judicial notice of defendant's docket on appeal).

Consequently, the Court may take judicial notice of Exhibit W.

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| 1 | CONCLUSION |
|----|---|
| 2 | For the foregoing reasons, Varian respectfully requests that the Court take judicial notice |
| 3 | of each of the documents referenced herein and attached hereto. |
| 4 | |
| 5 | Dated: June 27, 2008. |
| 6 | WILLIAM L. ANTHONY MATTHEW H. POPPE |
| 7 | ZHENG LIU ORRICK, HERRINGTON & SUTCLIFFE LLP |
| 8 | |
| 9 | By:/s/ Matthew H. Poppe |
| 10 | By: /s/ Matthew H. Poppe Matthew H. Poppe Attorneys for Defendant VARIAN MEDICAL SYSTEMS, INC. |
| 11 | VARIAN MEDICAL SYSTEMS, INC. |
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| 1 | <u>CERTIFICATE OF SERVICE</u> | | |
|----|---|--|--|
| 2 | I hereby certify that a true and correct copy of the REQUEST FOR JUDICIAL NOTICE | | |
| 3 | IN SUPPORT OF DEFENDANT'S MOTION TO TRANSFER ACTION TO U.S. DISTRICT | | |
| 4 | COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA was served upon the | | |
| 5 | University of Pittsburgh, through its counsel, via: | | |
| 6 | | | |
| 7 | Hand-Delivery | | |
| 8 | Facsimile | | |
| 9 | First Class, US Mail, Postage Prepaid | | |
| 10 | Certified Mail-Return Receipt Requested | | |
| 11 | X ECF Electronic Service | | |
| 12 | Overnight Delivery | | |
| 13 | | | |
| 14 | at the following addresses: | | |
| 15 | Rita E. Tautkus | | |
| 16 | Morgan Lewis & Bockius, LLP One Market – Spear Street Tower San Francisco, CA 94105 | | |
| 17 | rtautkus@morganlewis.com | | |
| 18 | | | |
| 19 | Dated: June 27, 2008 | | |
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| 24 | OHS East: 160448168.6 3424-2015 BYA/A3D | | |
| 25 | 3424-2013 D 1 A/A3D | | |
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EXHIBIT A

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

CIVIL ACTION

Plaintiff,

No.

V.

VARIAN MEDICAL SYSTEMS, INC.,

JURY TRIAL DEMANDED

Defendant,

COMPLAINT

The Parties

- 1. Plaintiff University of Pittsburgh ("Plaintiff") is an academic institution with its principle place of business in Pittsburgh, Pennsylvania.
- 2. Upon information and belief, defendant Varian Medical Systems, Inc. ("Varian") is a Delaware corporation with its principle place of business in Palo Alto, California.

Jurisdiction and Venue

- 3. This action arises under the patent laws of the United States. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338.
 - 4. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b).

Count I (Claim for Patent Infringement)

5. Plaintiff is the owner of the entire right, title and interest in and to United States Patent No. 5,727,554 ("the '554 patent"), and United States Patent No. 5,784,431 ("the '431 patent"), referred to collectively herein as the "Patents-In-Suit" each of which pertains to the

Plaintiff's image-guided radiation therapy technology. A true and correct copy of each of the Patents-In-Suit is attached hereto as Exhibits A and B.

- 6. Plaintiff alleges on information and belief, that Varian has infringed and continues to infringe the Patents-In-Suit by making, using, offering for sale and/or selling in the United States devices that embody or otherwise practice one or more of the claims of the Patents-In-Suit, or by otherwise contributing to infringement or inducing others to infringe the Patents-In-Suit. These acts constitute violations of 35 U.S.C. § 271.
- 7. Plaintiff has given notice to Varian that Varian's products and systems embody or otherwise practice the claimed subject matter of the Patents-In-Suit. Varian's infringement of the Patents-In-Suit is, has been, and continues to be willful and deliberate.
- 8. Unless enjoined by this Court, Varian will continue their acts of infringement causing substantial and irreparable harm to Plaintiff.
- 9. As a direct and proximate result of Varian's infringement of the Patents-In-Suit, Plaintiff has been and continues to be damaged in an amount yet to be determined.
- 10. This is an exceptional case within the meaning of 35 U.S.C. § 285, and Plaintiff is accordingly entitled to an award of its attorneys' fees.

Request for Relief

WHEREFORE, Plaintiff demands judgment against Varian as follows:

- A. Preliminarily and permanently enjoining and restraining the Varian, its officers, directors, employees, agents, servants, successors and assigns, and any and all persons acting in privity or in concert with Varian, from further infringement of the Patents-In-Suit;
- B. Assessing against Varian and awarding to Plaintiff damages sufficient to compensate for Varian's infringement of the Patents-In-Suit, and conducting an accounting to

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determine said damages, as provided by 35 U.S.C. § 284;

- C. Increasing said damages to three times the amount found or assessed;
- D. Awarding Plaintiff its costs and disbursements in this action, including reasonable attorneys' fees, as provided by 35 U.S.C. § 285; and
- E. Granting to Plaintiff such other and further relief as this Court may deem just and proper.

Jury Demand

Plaintiff hereby demands a jury trial as provided by Rule 38(a) of the Federal Rules of Civil Procedure.

DATED: April 13, 2007

/s/ Christopher K. Ramsey

cramsey@morganlewis.com

David W. Marston Jr. (Pa ID No. 84399) MORGAN, LEWIS & BOCKIUS LLP 1701 Market Street Philadelphia, PA 19103 (215) 963-5937 (215) 963-5001 (facsimile) dmarston@morganlewis.com

Christopher K. Ramsey (Pa ID No. 63293) MORGAN, LEWIS & BOCKIUS LLP One Oxford Centre, 32nd Floor Pittsburgh, PA 15219 (412) 560-3300 (412) 560-7001 (facsimile)

Daniel Johnson, Jr. (to be admitted pro hac vice)
Allison K. Young (to be admitted pro hac vice)
MORGAN, LEWIS & BOCKIUS LLP
2 Palo Alto Square, Suite 700
3000 El Camino Real
Palo Alto, CA 94306
(650) 843-4000
(650) 843-4001 (facsimile)
djjohnson@morganlewis.com
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Attorneys for Plaintiff University of Pittsburgh

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OJS 44 (Rev. 11:04)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SET INSTRUCTIONS ON THE REVERSE OF THE FORM.)

| l. (a) PLAINTIFFS | UNIVERSITY OF PITTSBURGH | DEFENDANTS VARIAN MEDICAL SYSTEMS, INC. |
|--|---|--|
| (b) County of Residence o | f First Listed Pittsburgh | County of Residence of First Listed Defendant |
| Bockius, One | K. Pkalmfiet CASSS) Ramsey, Morgan Lewis & Oxford Centre, Pgh., PA Marston Jr. Morgan, Lewis & Bockius LLP, 1761 | 15219 |
| Philadelphia, PA 19103, (2 | :15) 963-5937; | |
| (Firm Nam | e, Address, and Telephone N umber) | Attorneys (If Known) |
| II. BASIS OF JURISDICTION | (Place an "X" in One Box Only) | III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in O ne Sux for Plaintiff |
| f U.S Government Plaintiff | X 3 Federal Question (U.S. Government Not a Party) | PTF DEF PTF DEF Citizen of This State X |
| U.S. Government Defendant | 4 Diversity Undicate Citizenship of Panies in Item III) | Citizen of Another State |
| IV. NATURE OF SUIT | (Place an "X" in One Box Only) | |
| CONTRACT 110 Insurance 120 M strice 130 Miller Act 140 Negotable Instrument 150 Recovery of Overpayment 5 Enforcement of Judgment 151 Medicare Act 152 Recovery of Defaulted 5tudent Loans (Excl. Veterans) 153 Recovery of Overpayment of Veterans's Benefits 160 Stockholders' Surts 190 Other Contract 195 Contract Product Liability 176 Franchise REAL PROPERTY 210 Land Condemnation 220 Foreclosure 230 Kent Lease & Ejectment 240 Tors to Land 245 Tort Product Liability 256 All Other Real Property | PERSONAL INJURY 310 Airplane 315 Airplane Product Liability 320 Assault, Libel & Slander 330 Federal Employers' Liability 345 Marine Product Liability 345 Marine Product Liability 358 Motor Vehicle 370 Other Personal 375 Motor Vehicle 375 Motor Vehicle 376 Other Personal 375 Property Damage 376 Other Personal 377 Pruh in Lending 378 Property Damage 378 Property Damage 379 Product Liability 370 Other Personal 379 Other Personal 379 Other Personal 370 Other Personal | 625 Drug Related Service 28 USC 157 430 Banks and Braiking 450 Commerce 460 Deportation 450 Deportation 450 Deportation 450 Commerce 460 Deportation 450 Deportation 450 Commerce 460 Deportation 450 D |
| Original - 2 Re | "X" in One Box Only) moved from Remanded from ate Court Appellate Court | 4 Reinstated or 5 Transferred from another district 6 Litigation Majistrate Judge from Majistrate Judgment |
| vi. Cause of action | Cite the U.S. Civil Statute under which you are fill Brief description of cause: Patent infringement ac | ling (Do not cite jurisdictional statutes unless diversity): 35 U.S.C. § 271 |
| /II. REQUESTED IN COMPLAINT: | CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23 | DEMAND \$ CHECK YES only if demanded in complaint: JURY DEMAND: X Yes No |
| /III. RELATED CASE(S IF ANY | (See instructions): YELLS CITE | DOCKET NUMBER |
| DATE April 13, 2007 OR OFFICE USE ONLY | SIGNATURE OF ATTORN | NEY OF RECORD /s/ Christopher K. Ramsey |
| RECEIPT #A | MOUNT APPLYING IFP | JUDGE MAG, JUDGE |

Case 2:0%-ove902___5AJ\$DocDocumn@756-2 Filed 04/13/2007 Page 2 of 3

JS 44AREVISED OCTOBER, 1993

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

THIS CASE DESIGNATION SHEET MUST BE COMPLETED

| PART A | | | |
|--------------------|-------------------|--|--|
| This ca | E CALE | ngs on the Erie Johnstown X Pittsburgh) calendar. NDAR - If cause of action arose in the counties of Crawford, Elk, Erie, Forest, McKean. Venang | |
| | or W | arren, OR any plaintiff or defendant resides in one of said counties. | |
| 2. JOH: Somerse | NSTOV 21 OR as | WN CALENDAR - If cause of action arose in the counties of Bedford, Blair, Cambria, Clearfield my plaintiff or defendant resides in one of said counties. | 1 or |
| 3. Comp | olete if | on ERIE CALENDAR: I certify that the cause of action arose in | County and |
| | that | the resides in | County. |
| 4. Comp | olete if | on JOHNSTOWN CALENDAR: I certify that the cause of action arose in | County |
| | hat the | | County. |
| PART | В (| You are to check ONE of the following) | |
| 1. | This | s case is related to Number Judge | |
| 2. X DEFIN | | case is not related to a pending or terminated case. S OF RELATED CASES: | nh sharanganaganagan y |
| Same 18 | sues o | cases are deemed related when a case filed relates to property included in another suit or involve if fact or it grows out of the same transactions as another suit or involves the validity or infringe olved in another suit | s the ement |
| EMINE | OD TV | MAIN: Cases in contiguous closely located groups and in common ownership groups which versets to consolidation for trial shall be deemed related. | vill |
| HABEA | S COR | PUS & CIVIL RIGHTS: All habeas corpus petitions filed by the same individual shall be deel o se Civil Rights actions by the same individual shall be deemed related. | med |
| PARTC | · · · · · · · · | o se contrigues actions by the same individual shall be deemed related. | |
| 1. CIVIL | CAT | EGORY (Place x in only applicable category). | |
| 1. | | Antitrust and Securities Act Cases | |
| 2. | Γ | Labor-Management Relations | |
| 3. | Γ | Habeas Corpus | |
| 4. | | Civil Rights | |
| 5. | X | Patent, Copyright, and Trademark | |
| 6. | | Eminent Domain | |
| 7. | | All other federal question cases | |
| 8. | 2 | All personal and property damage tort cases, including maritime, FELA, Jones Act, Motor vehicle, products liability, assault, defamation, malicious prosecution, and false arrest | |
| 9. | Γ | Insurance indemnity, contract and other diversity cases. | |
| 10. | 1 | Government Collection Cases (shall include HEW Student Loans (Education | , 1 |
| | , | VA Overpayment, Overpayment of Social Security, Enlistment Overpayment (Army, Navy, etc. HUD Loans, GAO Loans (Misc. Types), Mortgage Foreclosures, S.B.A. Loans, Civil Penalties and Coal Mine Penalty and Reclamation Fees.) | .), |
| l cen | tify tha | at to the best of my knowledge the entries on this Case Designation Sheet are true and correct | |
| DATE | April 1 | 3, 2007 ATTORNEY ATTORNEY AT LAW | |
| NOTE: PROCESS | ALL SED. | SECTIONS OF BOTH SIDES MUST BE COMPLETED BEFORE CASE CAN BE | THE MEMBERSHOPPENS AND ADDRESS |

Case 2:03-ove902__15AJ\$DocDoneum127156-42 Filed 04/13/2007 Page 3 of 3

JS 44 Reverse (Rev. 11/04)

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS 44

Authority For Civil Cover Sheet

The JS 44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

- I. (a) Plaintiffs-Defendants. Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a agency.governmentagency, governmentagency, identify first the agency and then the official, giving both name and title.
- (b) County of Residence. For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)
- (c) Attorneys. Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see
- attachment)"

 Jurisdiction. The basis of jurisdiction is set forth under Rule 8(a), F.R.C.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below. United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States are included here.

United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.

Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.

Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; federal question actions take precedence over diversity cases.)

- III. Residence (citizenship) of Principal Parties. This section of the JS 44 is to be completed if diversity of citizenship was indicated Mark that Section for each principal party.
- IV. Nature of Suit. Place an "X" in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section below, Msufficient to enable the deputy clerk or the statistical clerks in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.
- V. Origin. Place an "X" in one of the seven boxes.

Original Proceedings. (1) Cases which originate in the United States district courts. Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441. When the petition for removal is granted, check this box.

Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.

Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date. Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a). Do not use this for within district transfers or multidistrict litigation transfers.

Multidistrict Litigation. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407. When this box is checked, do not check (5) above.

Appeal to District Judge from Magistrate Judgment. (7) Check this box for an appeal from a magistrate judge's decision.

decision.

Cause of Action. Report the civil statute directly related to the cause of action and give a brief description of the cause. Do not cite jurisdictional statutes unless

Example:
U.S. Civil Statute: 47 USC 553

diversity.

Brief Description: Unauthorized reception of cable

VII. Requested in Complaint. Class Action. Service Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.

Demand. In this space enter the dollar amount (in thousands of dollars) being demanded or indicate other demand such as a preliminary injunction.

Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded. VIII. Related Cases. This section of the JS 44 is used to reference related pending cases if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.

Case 2:07-cv-00--- I-AJS Document 1-5 Filed 04/13/2007 Page 1 of 1

UNITED STATES DISTRICT COURT

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WESTERN DISTRICT OF PENNSYLVANIA
PITTSBURGH Division

07003692 - EA April 13, 2007

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TOTAL→

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FROM: MORGAN LEWIS & BOCKIUS
ONE OXFORD MENTRE
32ND FLOOR
PITTSBURGH PA 15222

EXHIBIT A

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US005727554A

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United States Patent 1191

Kalend et al.

[56]

[11] Patent Number: 5,

5,727,554

[45] Date of Patent:

Mar. 17, 1998

[54] APPARATUS RESPONSIVE TO MOVEMENT OF A PATIENT DURING TREATMENT/ DIAGNOSIS

[75] Inventors: Andre M. Kalend, Monroeville; Joel Greenberger, Sewickley; Karun B. Shimoga, Pittsburgh; Charalambos N. Athanassiou, Pittsburgh; Takeo Kanade, Pittsburgh, all of Pa.

[73] Assignce: University of Pittsburgh of the Commonwealth System of Higher Education, Pittsburgh, Pa.

References Cited

U.S. PATENT DOCUMENTS

| 4,466,075 | 8/1984 | Groch et al 364/413.26 X |
|-----------|--------|----------------------------|
| 5,080,100 | 1/1992 | Trotel 128/653.1 |
| 5,103,823 | 4/1992 | Acharya et al |
| 5,214,711 | | Neely et al 364/413.27 X |
| 5,295,483 | | Nowacki et al 128/660.03 |
| 5,389,101 | | Heilbrun et al 128/653.1 X |
| 5,398,684 | 3/1995 | Hardy 128/653.1 |
| 5,446,548 | | Gerig et al 128/653.1 X |
| 5,482,042 | | Fujita 128/653.1 |
| 5,558,430 | | Bova et al |
| | | |

OTHER PUBLICATIONS

Active Shape Models—'Smart Snakes', T.F. Cootes and C.J. Taylor, pp. 267-275, Proceedings of European Conference on Computer Vision, Genoa, Italy, 1992.

Training Models of Shape from Sets of Examples, T.F. Cootes, C.J. Taylor, D.H. Cooper, and J. Graham, pp. 8–18, Proceedings of European Conference on Computer Vision, Genoa, Italy, 1992.

A Computational Framework and an Algorithm for the Measurement of Visual Motion. P. Anandan, pp. 283-310, International Journal of Computer Vision, 2, 1989.

Feature Extraction from Faces Using Deformable Templates, A.L. Yuille, P.W. Hallinan, and D.S. Cohen, pp. 99–111, International Journal of Computer Vision, 8:2, 1902

Computer and Robot Vision, vol. I, R. M. Haralick and L. G. Shapiro, pp. 328-353, Library of Congress Cataloging-in-Publication Data, 1992.

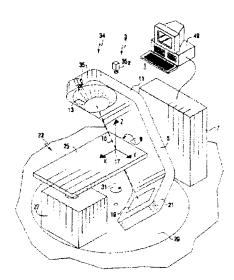
Motion Tracking with an Active Camera, D. Murray and A. Basu, pp. 449-459, IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. 16, No. 5, May 1994.

Primary Examiner—Francis Jaworski
Attorney, Agent, or Firm—Richard V. Westerhoff; Eckert
Seamans Cherin & Mellott, LLC

57] ABSTRACT

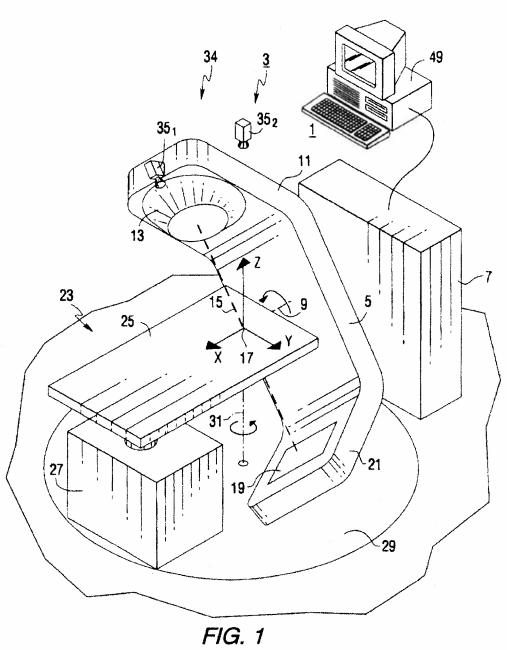
A camera generates digital image signals representing an image of one or more natural or artificial fiducials on a patient positioned on treatment or diagnosis equipment. A processor applies multiple levels of filtering at multiple levels of resolution to repetitively determine successive fiducial positions. A warning signal is generated if movement exceeds certain limits but is still acceptable for treatment. Unacceptable displacement results in termination of the treatment beam. Tracking templates can be generated interactively from a display of the digital image signals or through automatic selection of an image having the median correlation to an initial template. A gating signal synchronized to patient breathing can be extracted from the digital image signals for controlling the radiation beam generator.

22 Claims, 12 Drawing Sheets



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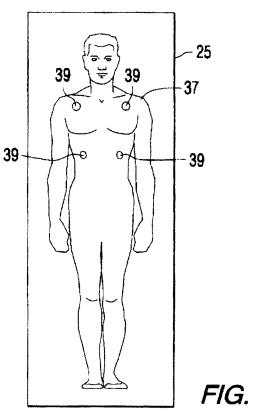
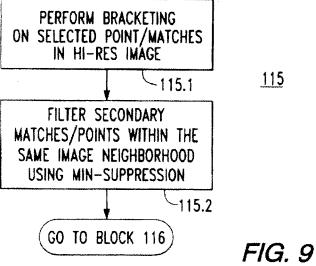
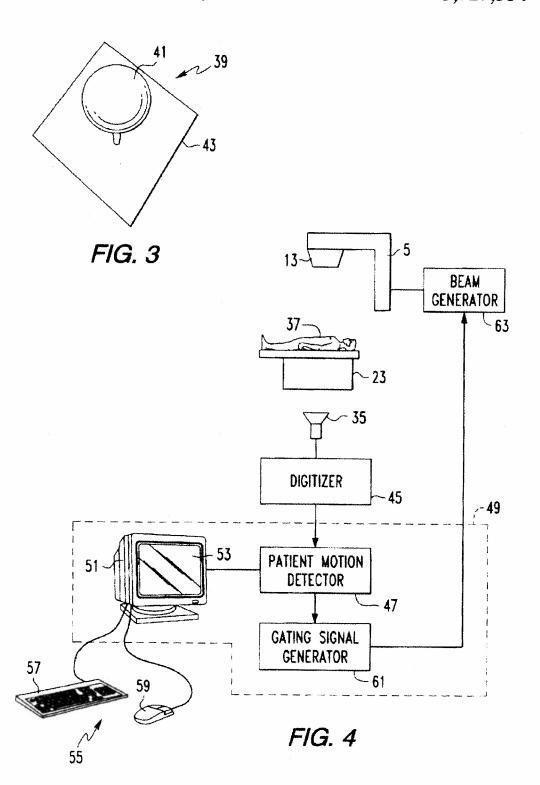


FIG. 2



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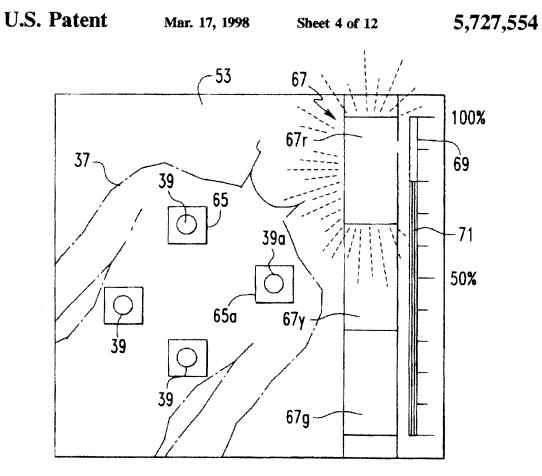


FIG. 5

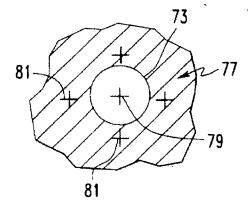
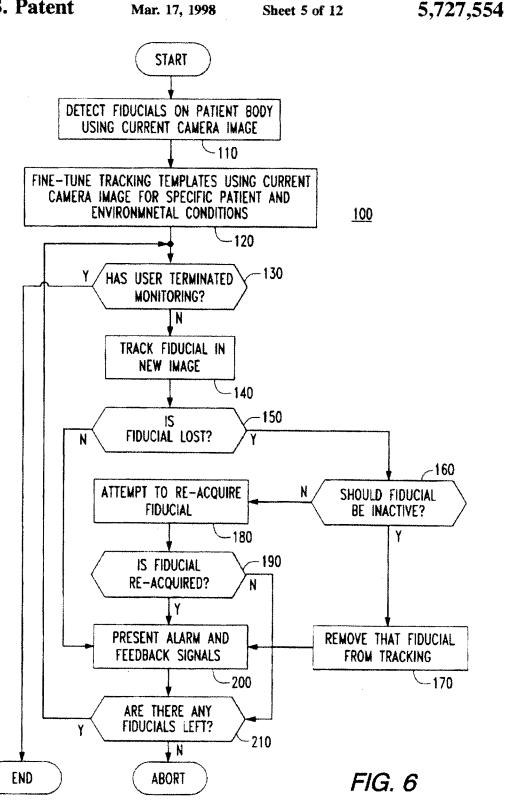


FIG. 17

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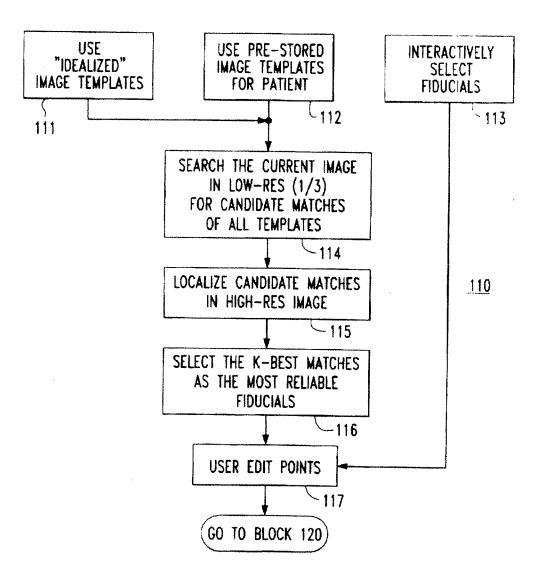


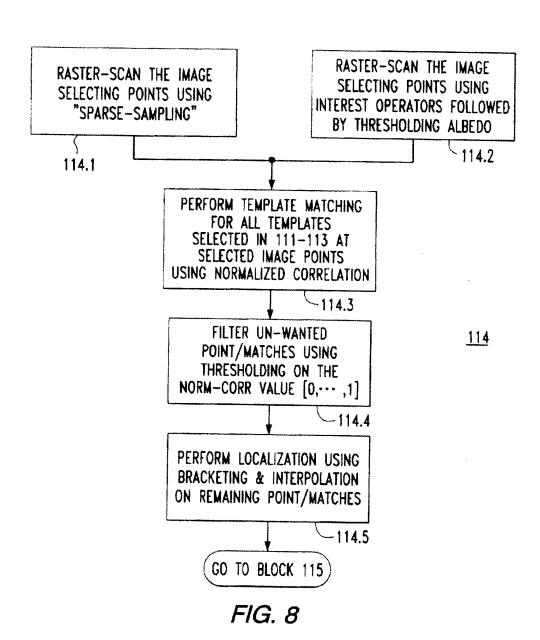
FIG. 7

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U.S. Patent 5,727,554 Mar. 17, 1998 Sheet 8 of 12 SELECT "MEDIAN" POINT/MATCH FROM FIDUCIALS DETECTED USING THE SAME INITIAL TEMPLATE -121 ACQUIRE RELEVANT IMAGE FOR PORTION AS THE **EACH** 120 NEW TEMPLATE **TEMPLATE FAMILY** -122 RECORD POSITION/INT-OPER ALBEDO/NORM-CORR FOR ALL RELEVANT POINT/MATCHES

RECORD THE CURRENT SPATIAL PATTERN OF THE FIDUCIALS (POINT/MATCHES)

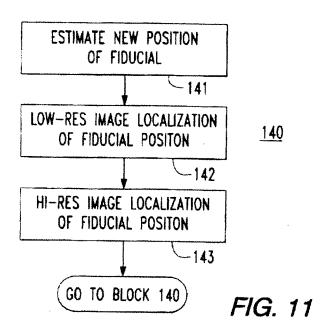
124

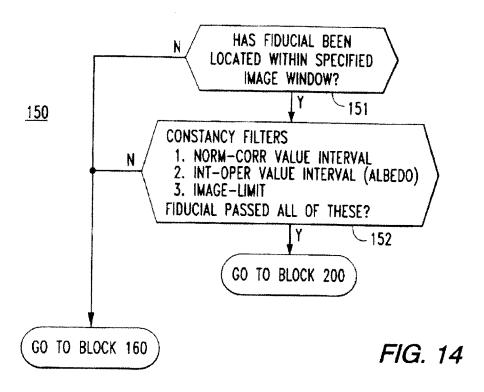
GO TO BLOCK 130

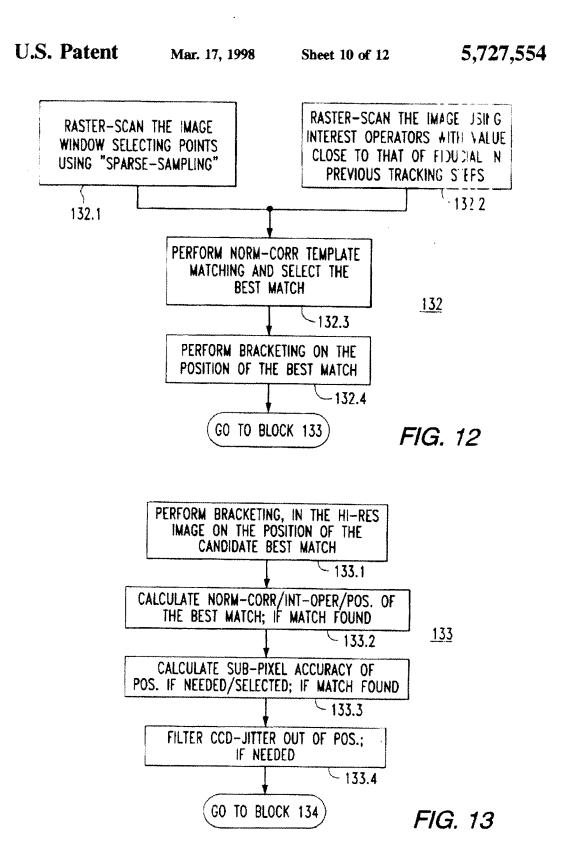
USING THE NEWLY ACQUIRED TEMPLATE

FIG. 10

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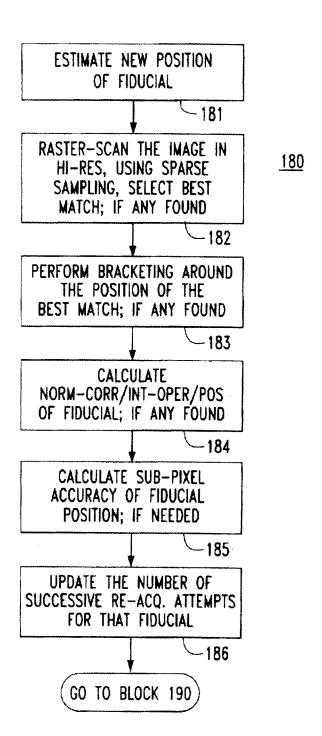


FIG. 15

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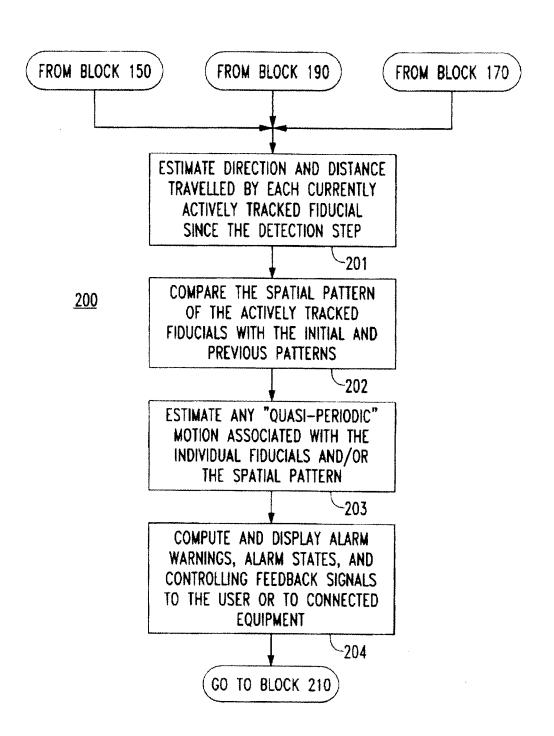


FIG. 16

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APPARATUS RESPONSIVE TO MOVEMENT OF A PATIENT DURING TREATMENT/ DIAGNOSIS

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to medical use of radiation for treatment and diagnosis, and more particularly to detection and response to patient movement during radiological treatment and diagnosis.

2. Background Information

Conventional radiotherapy treatment relies on simple patient setup techniques. These techniques use stationary and a limited number of radiation fields, which are often 15 much wider than the tumor or volume, thus effectively compensating for the possibility of a tumor geometric miss. Consequently, a substantial amount of healthy tissue is irradiated and becomes a radio-biological dose limiting factor in tumor control.

Modern conformal dynamic radiotherapy attempts to overcome the above radio-biological limitation by tightmargin conformation of radiation dose distribution tailored to the three-dimensional tumor volume by the use of computer-control multibeam conformal dynamic radio 25 therapy (CCRT). Consequently, the accuracy in patient position, knowledge of the movement of a patient including substantial motion of internal organs such as with breathing is of primary importance. In addition to patient movement which would cause the tight beam to miss the tumor, it is 30 important to be able to detect patient movement which could cause a collision between the patient and the linear accelerator, which is repeatedly repositioned to establish the multiple treatment beams.

There is a need therefore for apparatus for detecting 35 in implementation of the invention. patient movement on radiological treatments/diagnostic equipment.

There is a particular need for such apparatus which can detect submillimeter patient movement in real time.

There is also a need for such apparatus which can detect 40 patient movement initiated from various treatment positions.

There is also a need for such apparatus which can detect patient movement under varying lighting conditions.

There is a further need for such apparatus which can 45 discriminate movement associated with patient breathing from other movement and accommodate therefor.

SUMMARY OF THE INVENTION

These needs and others are satisfied by the invention 50 which is directed to apparatus responsive to movement of a patient which identifies and tracks movement of at least one passive fiducial on the patient. The apparatus applies multiple levels of filtering which can include: correlation, prefcrably normalized correlation, sparse sampling, bracketing 55 and interpolation, and minima suppression to rapidly identify the location of the at least one fiducial. The multiple levels of filtering are applied at multiple levels of resolution of the digital image signals.

Interest operators can be used in combination with tem- 60 plates to locate the positions of the passive fiducials. The templates can be selected interactively by a user from a display generated by the digital image signals. Alternatively, the template used for tracking is selected from images generated using an initial template. Rather than using the 65 image which best matches the initial template, the template with a median match is selected.

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As another aspect of the invention, the means generating an output includes means indicating movement of the at least one passive fiducial relative to at least one selected level of displacement. Preferably, the output means gener-5 ates a warning that movement exceeds a first displacement and includes means providing a signal for terminating radiation treatment when the movement exceeds a second greater displacement. Preferably, the means providing an indication of movement includes a display generating an 10 image of the patient and the fiducials, together with an indication of movement relative to the first and second displacements.

As yet another aspect of the invention, the means determining movement of the passive fiducials includes means detecting movement associated with patient breathing and random movement. The movement associated with patient breathing can be used to generate a gating signal synchronized to patient breathing. This gating signal can then be used to actuate the beam generator only during selected parts 20 of the breathing cycle.

BRIEF DESCRIPTION OF THE DRAWINGS

A full understanding of the invention can be gained from the following description of the preferred embodiments when read in conjunction with the accompanying drawings in which:

FIG. 1 is an isometric view of apparatus in accordance with the invention for implementing conformal dynamic radiotherapy.

FIG. 2 is a plan view of a patient reclining on a couch which forms part of the apparatus of FIG. 1 and illustrating the placement of fiducials in accordance with the invention.

FIG. 3 is a perspective view of a preferred fiducial used

FIG. 4 is a functional diagram illustrating implementation of the invention.

FIG. 5 is an illustration of a display which is generated by the apparatus of FIG. 1 in implementation of the invention.

FIGS. 6-16 are flow charts of software used in implementation of the invention.

FIG. 17 is an illustration of an interest operator which can be used in implementation of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 illustrates a radiotherapy treatment system 1 in which the invention is implemented. This system 1 includes a machine 3 having a gantry 5 pivotally mounted on a machine base 7 for rotation about a horizontal axis 9. The gantry 5 has a first arm 11 carrying a collimator 13 which directs a beam of high energy radiation 15, such as a beam of high energy photons, along a path which is perpendicular to and passes through an extension of the axis of rotation 9. This intersection is referred to as the isocenter 17. In some machines, a portal imager 19 is mounted on a second arm 21 on the opposite end of the gantry in alignment with the radiation beam 15. The portal imager 19 records radiation which is not absorbed by the patient.

The isocenter 17 serves as the origin of a coordinate system for room space. As can be seen, the X axis coincides with the axis of rotation 9 of the gantry. Thus, as the gantry 5 rotates it defines a plane of treatment containing the Y and

The machine 3 further includes a patient positioning assembly 23, which includes a couch 25 mounted on a

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support 27 for vertical, lateral and longitudinal movement relative to the support. The support 27 is mounted on a turntable 29, which has its axis 31 vertically aligned under the isocenter 17 and concentric with the Z axis. With this arrangement, the patient positioning assembly 23 has four degrees of freedom: translation in the X, Y and Z axes of room space and rotation about the Z axis. Thus, the patient is not rotated about the longitudinal axis of the couch or tilted about a horizontal axis extending transversely through the couch. However, with the addition of rotation of the gantry in the Y-Z treatment plane, the radiation beam 15 can be directed through a patient reclining on the couch 25 in any desired direction. A computer 33 controls movement of the patient positioning assembly 23 and the gantry 5 for establishing the progression of high energy treatment beams used in practicing conformal radiation therapy.

As previously discussed, in conformal radiation therapy the beam 15 is tightly conformed by the collimator 13 to the specific tumor to be treated. Thus, movement of the patient on the couch 25 of the patient position assembly 23 can 20 cause misalignment of the radiation beam 15 with the tumor. This not only degrades treatment of the tumor but also exposes surrounding healthy tissue to unwanted levels of radiation. In addition, normal breathing by the patient can cause movement of internal organs by an amount which would result in misalignment of the beam. For instance, a tumor on the lower portion of the lung can move several centimeters during normal breathing. Slight movement of the patient can be tolerated; however, treatment should be terminated if acceptable tolerances of movement are 30 exceeded. Furthermore, excessive movement by the patient can also cause a collision between the patient and the gantry as the patient positioning assembly 23 and gantry are positioned for successive treatment beams.

The invention employs a vision system 34 to measure and 35 respond to patient movement. The vision system 34 includes at least one video camera 35. Preferably, multiple cameras are used. In the exemplary embodiment of the invention a first camera 35, is mounted on the first arm 11 of the gantry 5 adjacent the collimator 13 and is aimed to capture an 40 image of a patient 37 positioned on the couch 25, as shown in FIG. 2. As the camera 35; will be below the couch 25 for some positions of the gantry 5, a second camera 352 is fixed to the ceiling over the patient positioning assembly 23. The field of view of this camera 352 will be blocked when the 45 gantry 5 is at the top of its arc. Thus, the patient is visible to at least one camera 35 at all times. Additional cameras 35 could be provided, such as cameras laterally displaced from the patient positioning assembly 23 to provide more sensitivity to movement along the axis of, for instance, the 50 camera 35₂. However, as will be discussed below, a single camera can detect three-dimensional movement, including movement toward and away from the camera which is detected as a change in the size of the image.

In the exemplary embodiment of the invention, natural or artificial fiducials are used to detect patient movement. Natural fiducials could be scars or other prominent features of the patient. The preferred fiducial 39 shown in FIG. 3 is a sphere 41 covered with a material having a lambertian surface. Such a surface is highly reflective under low light conditions, yet provides a uniform scattered reflection with no highlights. The sphere 41 is attached to the center of a non-reflective base 43 which is secured to the patient's skin, such as by an adhesive.

In principle, only one fiducial 39 is required. As a practical matter, it is advantageous to provide multiple fiducials placed on the patient so as to detect any movement of the

critical locations. Thus, as shown in FIG. 2, by way of example, four fiducials 39 are placed on the patient's chest. Natural skin markings could be used in addition to the artificial fiducials shown in FIG. 3. If more than one camera 35 is used, each tracks as many of the fiducials 39 as it can see.

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FIG. 4 is a functional diagram of the invention. The camera(s) 35 capture an image of the fiducials 39 on the patient 37 reclining on the patient positioning assembly 23. The image captured by the camera 35 is digitized by digitizer 45 to generate digital image signals. These digital image signals are 0 to 255 gray scale signals for each camera pixel. The digital image signals are processed by a processor which includes a patient motion detector 47. Patient motion detector 47 is implemented in the computer 49 shown in FIG. 1. The computer 49 includes a monitor 51 which generates a display 53, an example of which is shown in FIG. 5. The man machine interface 55 for the computer 49 includes a keyboard 57 and a pointing device 59, such as a mouse or trackball.

As will be discussed fully, the patient motion detector 47 detects and identifies the fiducials 39 and then tracks their movement. Movement within a certain narrow tolerance is acceptable, while larger movements are unacceptable. Visible and/or audio warnings of these two classifications of movement can be generated. A gating signal generator 61 responds to unacceptable movement to disable the beam generator 63. This unacceptable movement which would terminate the radiation beam can be movement which displaces the target tumor so that it is missed by the radiation beam, or could be movement which would cause a collision between the patient and the gantry 5 during movement of the machine from one treatment beam to the next. In the former case, the gating signal generator 61 could re-enable the beam generator, if the patient returns to the proper position. For instance, a large sigh could temporarily displace the target area by an unacceptable amount. In accordance with another aspect of the invention, the patient motion detector 47 can track patient breathing and extract such quasi-periodic motion from random patient motion. Gating of the beam generator can then be synchronized with patient breathing. For instance, a tumor on the lung could move up to 4 to 5 centimeters during patient breathing. This is an unacceptable amount of movement. However, by synchronizing generation of the radiation beam with breathing, the tumor can be repetitively irradiated at a fixed position during the breathing cycle.

As shown in FIG. 5, the display 53 presents an image of the patient 37 with the fiducials 39 appearing prominently. An indicator 65, such as the square shown, surrounds each fiducial and is color coded to indicate the state of motion of the fiducial. The fiducial with the largest displacement such as 39a is singled out by a distinctive marker, such as a red square 65a, while the remaining markers are green squares in the exemplary system. The display also includes a traffic light 67 having a green section 67g, a yellow section 67y and a red section 67r. When motion of the fiducials is within preferred tolerances, the green section 67g of the traffic light is on. For motion which is outside the normal range, but which is still acceptable, the yellow section 67y is on. The traffic light turns red when the motion of any of the fiducials is approaching the unacceptable. A scale 69 along the side of the display 53 indicates in bar graph form the percentage of maximum allowable displacement of the fiducial of maximum displacement. Thus, for instance, if the red light 67r is illuminated and the bar graph 71 indicates 80%, the fiducial with maximum displacement has moved by a distance which

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is four fifths of the way through the acceptable displacement. The green, yellow and red regions need not be equal as shown in the example.

Detection of motion of a patient using passive fiducials requires an implementation which is robust enough to 5 accommodate for the variations in the shapes, appearance and lighting conditions to which the fiducials are subjected and, at the same time, is fast enough to provide real time tracking of patient movement. The invention satisfies these requirements by utilization of successive levels of filtering 10 and templates which are modified to accommodate for actual conditions. The result is a system which can track patient movement at 20 Hz or better.

Flow charts of suitable software 100 for implementing the invention are illustrated in FIGS. 6-16. FIG. 6 illustrates the main routine of the software 100 and includes detecting fiducials on the patient's body is in the current carnera image at 110. As will be described, this is accomplished utilizing templates. The templates are then fine tuned at 120 for the specific patient and environmental conditions. As long as the user desires monitoring as determined at 130, a loop is entered in which each individual fiducial is tracked as indicated at 140. It is possible that a fiducial can be lost by the tracking system. This could occur, for instance, if the patient moves so that a fiducial is blocked from the camera's view, or the patient moves a hand through the line of sight of the camera. Also, a fiducial may be temporarily lost by rapid movement or adverse lighting conditions. If a fiducial is lost, as determined at 150, a number of attempts can be made to reacquire it. If the fiducial is not reacquired within a reasonable time, however, it is removed from tracking as indicated by 160 and 170. If the selected number of attempts to reacquire, such as for example, five, have not been reached, an attempt is made to reacquire the fiducial at 180. If the fiducial is reacquired at 190, then a routine is run at 200 to generate any alarm if needed, and gating signals for the accelerator or beam generator 63 as indicated at 200. As long as any fiducials remain to be tracked as indicated at 210, the tracking loop is repetitively run.

FIG. 7 illustrates the general routine 110 for detecting the fiducials 39 in the image represented by the digital image signals. As mentioned, templates are used to identify the locations of the fiducials. The templates indicate what the pattern of digital signals representing the fiducial should look like. The size of the templates used must be considered. Larger templates improve the accuracy but take longer to process. In the exemplary system, templates 40 pixels square have been utilized. There are several ways in which the templates can be generated. As indicated at 111 in FIG. 7. idealized image templates can be utilized. In addition to such idealized templates or in place thereof, pre-stored image templates for the patient can be used as indicated at 112. Such pre-stored templates are used, for instance, for natural fiducials such as scars. One template is used for each family of fiducials. For instance, if all of the fiducials are the preferred fiducials such as shown in FIG. 3, only one template is required because all of the fiducials in the family will generate a similar image.

In addition, templates can be selected interactively by the 60 user at 113. This is accomplished by using the mouse or trackball 59 to click on the center of a representation of the fiducial on the display 53.

Where the idealized or pre-stored templates are utilized, a multiresolution pyramid is used to locate the fiducials in 65 the image using the templates. Thus, as indicated at 114, a search is made of the current image in low resolution for

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candidate matches of all template families. In the exemplary embodiment of the invention, one-third resolution is used at this point. Matches are made using a normalized correlation between the template and the image. The matches found in low resolution are then verified and localized in high resolution at 115. The K best matches are then selected as the most reliable fiducials at 116 where K equals the number of fiducials to be tracked. The user is then given the opportunity at 117 to edit the detected location of fiducials found either through use of the idealized or pre-stored templates or templates generated interactively.

The details of the low resolution detection routine performed in block 114 of FIG. 7 is shown in FIG. 8. As shown at 114.1, the image can be raster scanned selecting points using sparse sampling. In raster scanning pixels are considered successively along each line, line-by-line in increments of one, while in sparse sampling the increment is greater than one. Alternatively, the image can be raster scanned as indicated at 114.2, selecting candidate points using interest operators followed by thresholding. Interest operators are simple patterns which emphasize gray scale characteristics of a particular fiducial. An example is shown in FIG. 17, where the fiducial is a light circle 73 on a dark background 75. The interest operator 77 could be, for instance, the one pixel value 79 in the center having a gray scale value matching that of the light circle 73, and the four pixels 81 at the cardinal points having gray scale values similar to that of the background 75. Such interest operators permit rapid searching of the image and should be selected as to assure identifying all of the fiducials in the family. They will most likely also generate additional candidate points. Returning to FIG. 8, the interest operator generated value in the exemplary system is the relative albedo. The relative albedo of each point in the low resolution scan is compared to a threshold value to select candidate points.

For each candidate point, a template matching is performed at 114.3, using a normalized correlation. Unwanted point matches are then filtered out at 114.4 using thresholding on the normalized correlation value. In the exemplary embodiment, a normalized correlation of 0.75 was used as the threshold. Bracketing and interpolation are then used at 114.5 to localize the remaining point/matches. In implementing bracketing, a rectangular image window is selected within which the desired point match will definitely lie. Then by interpolating between the correlation values of points on the border of the selected window along with its center, a new estimate of the location of the point match is calculated. This process is repeated with successively smaller windows centered on the new estimate of the location of the point match until a singular point is reached. In the exemplary system, the interpolation is performed using a two-dimensional Gaussian distribution.

FIG. 9 illustrates the techniques for verifying the candidate matches in high-resolution indicated at 115 in FIG. 7. Bracketing is performed on the selected matches in high resolution as indicated at 115.1. These points are then filtered at 115.2 within the same image neighborhood using minima suppression. In implementing minima suppression, for each point which has been a match, an area the size of the template is centered on the point. A point is selected as a further candidate match only if it is the best correlation with the template within the template window.

An important aspect of the invention is the fine tuning of the tracking templates called for at 120 in FIG. 6. FIG. 10 illustrates the details of fine tuning the templates. As indicated at 121, the median point/match from fiducials detected using the same initial template is selected. For example, if

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there are three point matches for a fiducial family, the match having the middle value of correlation is selected. Notice that the match with the best correlation is not selected as it is likely to eliminate some valid matches. This technique adapts the selection of the template to be used for tracking 5 to the actual conditions existing at the time of the selection. The relevant image portion is then acquired as the new template at 122, and the position, the interest operator value and the normalized correlation for all relevant point/matches using this newly acquired template is then recorded at 123. 10 The steps 121–123 are accomplished for each template family. Then, the current special pattern of all the fiducials determined by the point/matches, is recorded at 124.

The program then enters the tracking loop at block 130 in FIG. 6. The routine for continuous tracking, which is called 15 at 140 in FIG. 6 is illustrated in FIG. 11. The new position of the fiducial is estimated at 131 by projecting a velocity vector calculated from prior positions of the fiducial. Localization of fiducial position is then implemented in low resolution using bracketing and interpolation as indicated at 132. This is followed by high resolution localization of the fiducial position at 133, also using bracketing and interpolation

The low resolution localization of block 131 is implemented by the routine illustrated in FIG. 12. As indicated at 132.1 points are selected by raster scanning the image window using sparse sampling. If interest operators are used, the interest operators with the value closest to that of the fiducial in the previous tracking step is selected at 132.2. In either case, a best match is selected using normalized correlation template matching at 132.3. This is followed by bracketing on the position of the best match at 132.4.

FIG. 13 illustrates the high resolution localization of fiducials called for in block 133 of FIG. 11. As indicated, bracketing is performed on a candidate with best match in high resolution as indicated at 133.1. If a match is found, the normalized correlation, interest operator value and position of the best match are calculated at 133.2. If desired, the sub-pixel accuracy of the position can be calculated at 133.3. The same interpolation technique as in bracketing and interpolation, as described above, is used. Alternatively, bilinear interpolation between the surrounding pixel correlation values could be used. Finally, if needed, charge coupled device (CCD) jitter is filtered out of the position at 133.4. In the exemplary system, a low pass filter is used.

The lost fiducial routine 150 in FIG. 6 is shown in FIG. 14. If the tracking routine finds no fiducial within the specified image window at 151, then clearly the fiducial has been lost. Even if a fiducial has been found, confirmation 50 must be made that it is in fact the new position of the fiducial. Hence, a number of constancy tests are applied in 152. For instance, the normalized correlation value and the interest operator value must not change by more than a selected amount, such as, for example, 15%, from the most current values. Also, image limits are applied. For instance, the fiducial should not have changed position by more than a predetermined amount or, if the edge of the image is reached, the position indicated is not accepted as the fiducial may be out of the field of view, although a continued indication that it is at the edge may be presented.

The routine 180 in FIG. 6 for reacquiring the lost fiducial is shown in FIG. 15. First, the new position of the fiducial is estimated at 181 using a larger search window than was used at 141 in FIG. 11. The image window is then raster 65 scanned in high resolution using sparse sampling to select the best match, if any, at 182. Bracketing is then performed

around the position of the best match, if any, at 183. The normalized correlation interest operator albedo and the position of the fiducial best matched is then determined at 184. This is followed by calculation of sub-pixel accuracy, if needed, at 185. Finally, the number of successive attempts to reacquire the fiducial is updated at 186.

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FIG. 16 illustrates the routine 200 in FIG. 6 for generating the alarms and gating the accelerator or beam generator. The direction and distance traveled by each currently actively tracked fiducial since the detection step is estimated at 201. The special pattern of the actively tracked fiducials is compared with the initial pattern and previous patterns at 202. Any quasi-periodic motion associated with the individual fiducials and/or the special pattern is predicted at 203 such as by using past data analysis. This would include movement associated with breathing or tremor of the patient. The alarm warnings, alarm states and accelerator gating signals are then computed at 204 for display or for feedback to the equipment, such as the accelerator.

While specific embodiments of the invention have been described in detail, it will be appreciated by those skilled in the art that various modifications and alternatives to those details could be developed in light of the overall teachings of the disclosure. Accordingly, the particular arrangements disclosed are meant to be illustrative only and not limiting as to the scope of invention which is to be given the full breadth of the claims appended and any and all equivalents thereof

What is claimed is:

 Apparatus responsive to movement of a patient positioned on a patient positioning assembly during treatment/ diagnosis, said apparatus comprising:

camera means generating digital image signals representing an image of at least one passive fiducial having a lambertian surface on said patient; and

processing means comprising means responsive to actual shape, appearance and lighting conditions of said at least one passive fiducial having a lambertian surface in said image represented by said digital image signals to determine successive positions of said at least one passive fiducial having a lambertian surface, means repetitively determining movement of said at least one passive fiducial having a lambertian surface from said successive positions, and means generating an output in response to predetermined values of said movement.

- 2. Apparatus responsive to movement of a patient positioned on a patient positioning assembly during treatment/diagnosis, said apparatus comprising:
- a single camera generating digital image signals representing an image of at least one fiducial on said patient; and

processing means comprising means responsive to actual shape, appearance and lighting conditions of said at least one fiducial in said image represented by said digital image signals to determine successive positions of said at least one fiducial, means tracking three-dimensional movement of said at least one fiducial from said successive positions and means generating an output in response to predetermined values of said movement.

3. The apparatus of claim 2, wherein said means repetitively determining movement of said at least one fiducial includes means detecting movement associated with patient breathing, and said output means comprises means generating a gating signal synchronized to said patient breathing.

4. The apparatus of claim 2, wherein said processing means comprises means repetitively applying multiple lev-

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els of filtering to said digital image signals to determine successive positions of said at least one fiducial.

- 5. The apparatus of claim 4, wherein said means applying multiple levels of filtering includes means applying brackcting and interpolation to said digital image signals to 5 determine position of said at least one fiducial.
- 6. The apparatus of claim 4, wherein said means applying multiple levels of filtering includes means applying minima suppression to said digital image signals.
- 7. The apparatus of claim 4, wherein said means applying 10 multiple levels of filtering include means applying at least two types of filtering selected from a group consisting of correlation, sparse sampling, bracketing and interpolation, and minima suppression.
- 8. The apparatus of claim 7, wherein said processing 15 means includes means using multiple levels of resolution of said digital image signals to determine successive positions of at least one fiducial and said means applying multiple levels of filtering comprise means applying filtering at each of said multiple levels of resolution.
- The apparatus of claim 4, wherein said processing means includes means using at least one of templates and interest operators to determine successive positions of said at least one fiducial from said digital image signals.
- 10. The apparatus of claim 2, wherein said pressing means 25 comprises means using a template to successively determine position of said at least one fiducial and means selecting said template.
- 11. The apparatus of claim 10, wherein said at least one fiducial comprises a plurality of fiducials, and said means 30 selecting a template includes means generating an initial template, means generating template matches for each of said plurality of fiducials from said digital image signals using said initial template, and means selecting one of said template matches for use in determining positions of each of 35 said plurality of fiducials.
- 12. The apparatus of claim 11, wherein said means selecting said one of said template matches includes means generating a value for each of said templates matches, and means selecting a template match having a median value as 40 said one template match.
- 13. Apparatus responsive to movement of a patient positioned on a patient positioning assembly during treatment/ diagnosis, said apparatus comprising:
 - camera means generating digital image signals represent- 45 ing an image of at least one fiducial on said patient; and processing means comprising means responsive to actual shape, appearance and lighting conditions of said at least one fiducial in said image represented by said digital image signals to determine successive positions 50 of said at least one fiducial at a rate of at least 20 Hz, means tracking movement of said at least one fiducial from said successive positions, and means generating an output in response to predetermined values of said movement.
- 14. The apparatus of claim 13, wherein said means generating an output includes means generating an indication of movement relative to at least one selected level of displacement.
- 15. The apparatus of claim 14, wherein said means generating said indication of movement includes means providing a warning that said movement exceeds a first displacement and means providing a signal for terminating

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radiation treatment/diagnosis when said movement exceeds a second displacement greater than said first displacement.

- 16. The apparatus of claim 14, wherein said means generating an indication of movement comprises display means generating an image of said fiducials and an indication of said movement relative to said first and second displacements.
- 17. The apparatus of claim 16, wherein said camera means includes means generating digital image signals for a plurality of fiducials, said means repetitively determining movement determines movement of each of said plurality of fiducials, and said display means includes indicator means indicating a fiducial with the greatest movement.
- 18. The apparatus of claim 14, wherein said means repetitively determining movement includes means detecting movement associated with patient breathing and random movement, and wherein said means generating an indication of movement indicates said random movement.
- 19. Apparatus responsive to movement of a patient positioned on a patient positioning assembly during treatment/ diagnosis, said apparatus comprising:
 - camera means generating digital image signals representing an image of at least one fiducial on said patient; and
 - processing means comprising means responsive to actual shape, appearance and lighting conditions of said at least one fiducial in said image represented by said digital image signals to determine successive positions of said at least one fiducial, means repetitively determining movement of said at least one fiducial from said successive positions, and means generating an output in response to predetermined values of said movement;
 - said processing means further comprising means using a template to successively determine position of said at least one fiducial and means selecting said template comprising display means, means generating on said display means an image of said at least one fiducial from said digital image signals and user interface means for selection of a template from said image of said at least one fiducial.
- 20. Apperatus responsive to movement of a patient positioned on a patient positioning assembly, said apparatus comprising;
- carnera means generating digital image signals representative of an image of said patient; and
- processing means comprising means determining movement of said patient from said digital image signals. including movement associated with breathing by said patient, and gating means generating gating signals synchronized with said movement associated with breathing by said patient.
- 21. The apparatus of claim 20, wherein said camera means generates said digital image signals representing an image of at least one fiducial on said patient, and said means determining movement of said patient includes means determining movement of said at least one fiducial.
- 22. The apparatus of claim 20 adapted for use during treatment of said patient with a radiation beam generated by a beam generator, wherein said gating means comprises means generating said gating signals synchronized to actuate said beam generator in synchronism with patient breathing.

EXHIBIT B

US005784431A

United States Patent [19]

Kalend et al.

[11] Patent Number:

5,784,431

Date of Patent:

Jul. 21, 1998

[54] APPARATUS FOR MATCHING X-RAY IMAGES WITH REFERENCE IMAGES

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Greece; Takeo Kanade, Pittsburgh, Pa.

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[21] Appl. No.: 739,622

[22] Filed: Oct. 29, 1996

Int. CL⁶

U.S. Cl. 378/65; 378/69; 378/901 [58] Fleid of Search 378/8, 20, 65,

378/68, 69, 901

[56] References Cited

U.S. PATENT DOCUMENTS

| 4,995,068 | 2/1991 | Chou et al 378/18 |
|-----------|--------|--------------------|
| 5,315,630 | 5/1994 | Strum et al. 378/6 |
| 5,398,684 | 3/1995 | Hardy 128/653. |

OTHER PUBLICATIONS

IEEE Transactions on Pattern Analysis and Machine Intelligence, vol. PAMI-7, No. 3, Template Matching in Rotated Images, A. Goshtasby, pp. 338-344, May 1985. Image Registration by Local Approximation Methods, vol. 6. No. 4, A. Goshtasby, pp. 255-261, Nov. 1988. Computer Vision, Graphics, and Image Processing 47, Automated Registration of Dissimilar Images: Application to Medical Imagery, M. Herbin et al., pp. 77-88, 1989. Computer and Robot Vision, vol. I. 7.2.12 Noise-Removal Techniques-Experiments, R. Haralick and L. Shapiro, 1992. International Journal of Computer Vision, 8:2, 99-111, Feature Extraction from Faces Using Deformable Templates, A. Yuille et al., pp. 99-111, 1992.

Pseudocorrelation: A fast, robust, absolute, grey-level image alignment algorithm, Medical Physics, vol. 21. No. 6. R. Radeliffe et al., pp. 761-769, Jun., 1994.

Technical paper of Xerox Palo Alto Research Center, Tracking and Recognizing Facial Expressions in Image Sequences, using Local Parameterized Models of Image Motion, M. Black and Y. Yacoob, Jan. 1995.

Clinical implementation of an objective computer-aided protocol for intervention in intra-treatment correction using electronic portal imaging, F. Van den Heuvel et al., Radiotherapy and Oncology 35 (1995) 232-239, Jun. 1995.

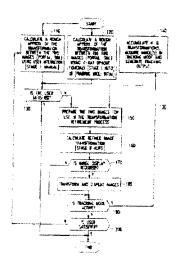
A Framework for the Robust Estimation of Optical Flow. Black, Michael J., Proc. Fourth Int. Conf. on Computer Vision (ICCV'93), Berlin, Germany May 1993,

Primary Examiner-David P. Porta Assistant Examiner-David Vernon Bruce Attorney, Agent, or Firm-Richard V. Westerhoff; Eckert Seamans Cherin & Mellot, LLC

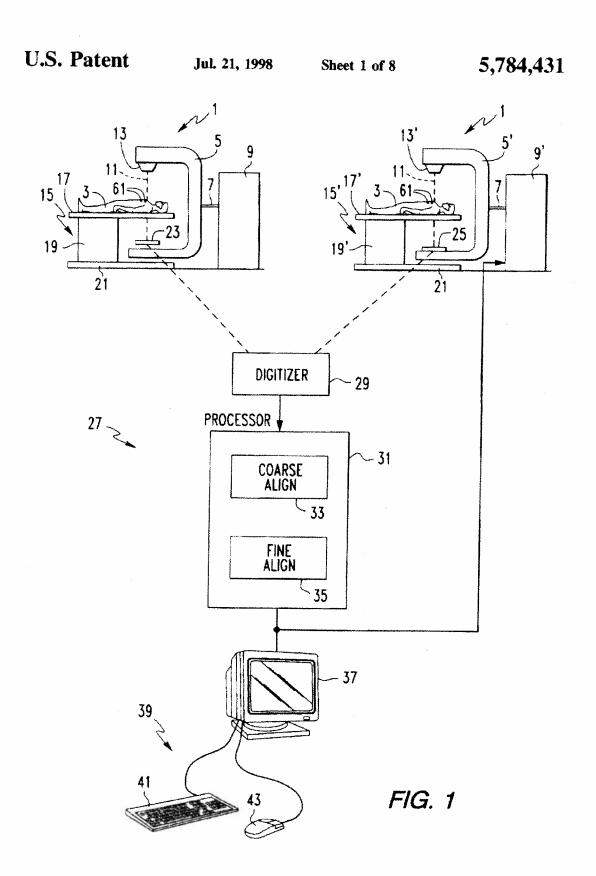
[57] ABSTRACT

X-ray images such as radiotherapy portal images and simulation images are matched by apparatus which digitizes the images and automatically processes the digitized signals to generate matched digitized signals which can be displayed for comparison. The digitized images are first coarse aligned using a transform generated from seed points selected interactively from the two images or through detection and identification of x-ray opaque fiducials placed on the patient. A fine alignment is then performed by first selecting intersecting regions of the two images and enhancing those regions. Secondly, an updated transform is generated using robust motion flow in these regions at successive ascending levels of resolution. The updated transform is then used to align the images which are displayed for comparison. The updated transform can also be used to control the radiotherapy equipment.

28 Claims, 8 Drawing Sheets



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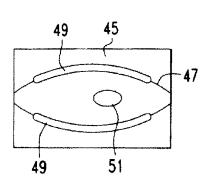


FIG. 2a

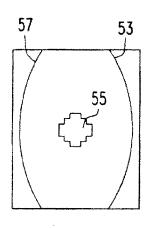


FIG. 2b

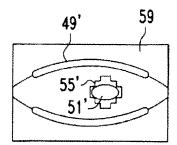


FIG. 2c

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U.S. Patent 5,784,431 Jul. 21, 1998 Sheet 3 of 8 START -140 -110 CALCULATE A ROUGH CALCULATE A ROUGH ACCUMULATE H. O APPROX. OF THE APPROX. OF THE TRANSFORMATIONS, **TRANSFORMATION** TRANSFORMATION BETWEEN THE TWO IMAGES (PORTAL, SIM.) USING USER INTERACTION BETWEEN THE TWO IMAGES (PORTAL, SIM.) USING X-RAY OPAQUE ACQUIRE IMAGE(S) IN TRACKING MODE AND GENERATE TRACKING OUTPUT [STAGE | MANUAL] FIDUCIALS [STAGE I AUTO] OR [TRACKING MODE: INITIAL] IS THE USER SATISFIED? 100 130 PREPARE THE TWO IMAGES FOR USE IN THE TRANSFORMATION ~ 150 REFINEMENT PROCESS CALCULATE REFINED IMAGE TRANSFROMATION -160STAGE I-AUTO -170IS IMAGE DISPLAY REQUIRED? TRANSFORM AND DISPLAY IMAGES 180 IS TRACKING MODE **ACTIVE?** 190 N IS USER SATISFIED? 200

END

FIG. 3

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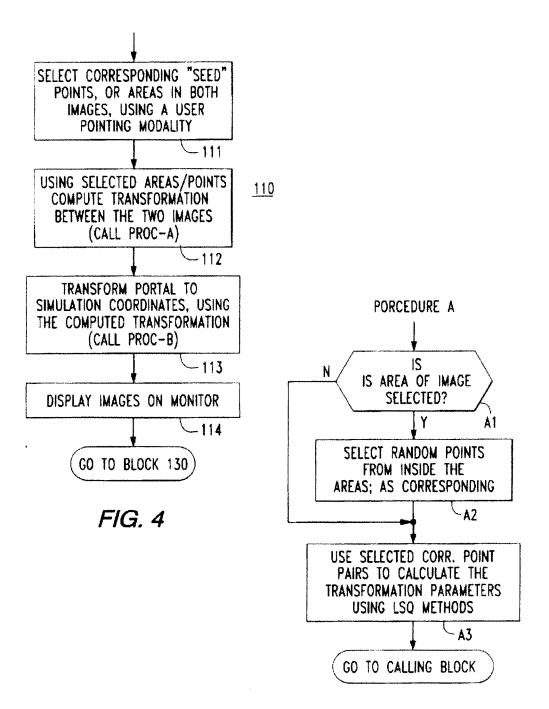


FIG. 5

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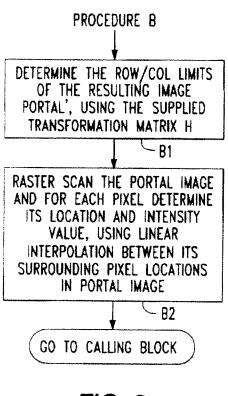


FIG. 6

150

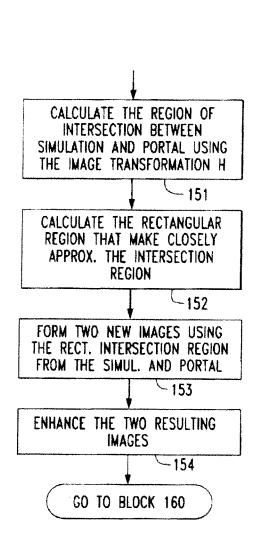


FIG. 8

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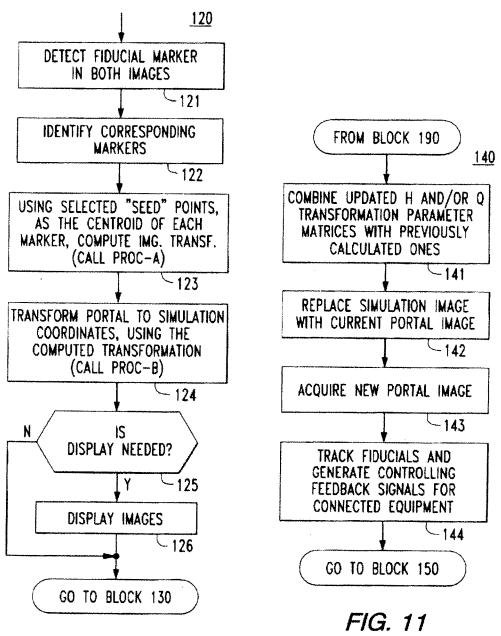


FIG. 7

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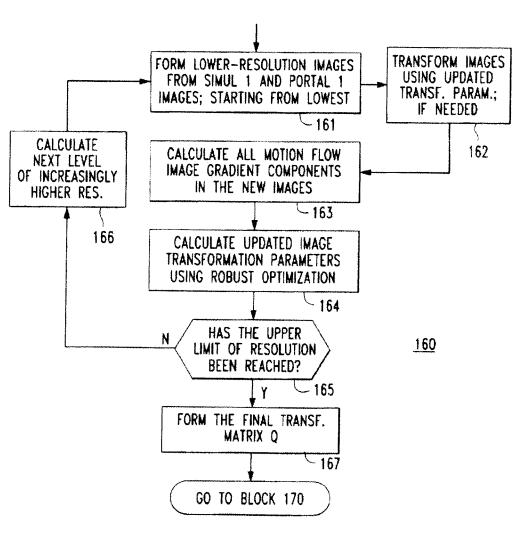
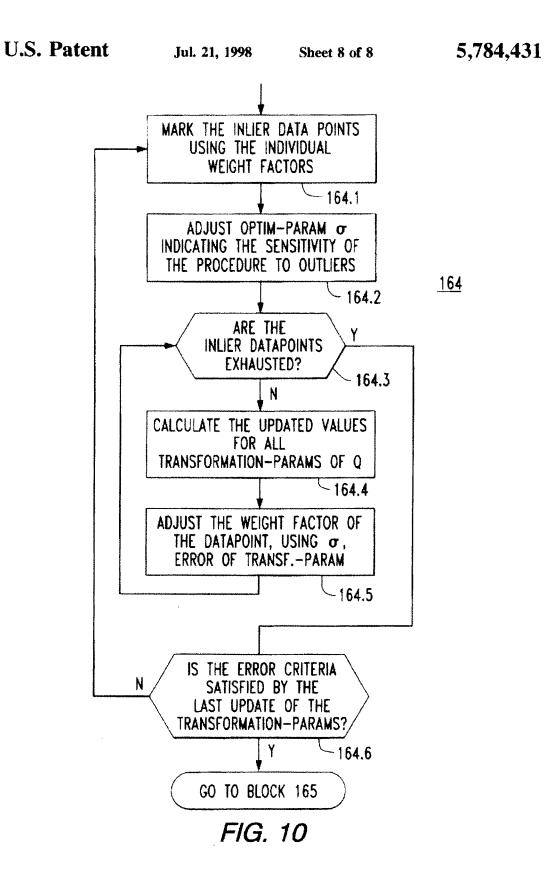


FIG. 9

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APPARATUS FOR MATCHING X-RAY IMAGES WITH REFERENCE IMAGES

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to matching similar x-ray images and has particular application to computer controlled radio-therapy apparatus for automatically matching on-line the portal images generated during radiotherapy treatment on a treatment machine with simulation images generated prior to treatment on a simulation machine for determining that the desired target is actually being irradiated for the purposes of assessment, and/or controlling the treatment equipment.

2. Background Information

There are medical applications which require matching of x-ray images. For instance, in computer controlled radiotherapy, treatment beams of high energy radiation are directed at a tumor from a number of directions so as to maximize irradiation of the tumor while minimizing exposure of healthy tissue surrounding the tumor. Such radiotherapy treatment typically has two distinct phases: the simulation phase, and the actual treatment phase. In the simulation phase, the patient is placed on equipment similar to the treatment equipment except that it does not generate 25 the high energy radiation beam. The simulation equipment is successively positioned to simulate the delivery of the sequence of treatment beams prescribed by the treating oncologist. This assures that the equipment can be positioned to deliver the required treatment beams and progres- 30 sively move from one treatment beam to the next without collision between the equipment and the patient or between movable components of the equipment. During this procedure a low dosage x-ray image called the simulation image is taken. This simulation image, which generally has good 35 contrast and detail because of the low energy of the x-ray beam used (in the kiloelectronvolt range) helps the oncologist to locate the position of the tumor and thereby establish the positions of the equipment components for delivering the successive treatment beams.

During the actual treatment phase, the patient is placed in the exact same position on the equipment as in the simulation before the regular-dosage x-ray radiation, typically in the megaelectronvolt range, is used to treat the patient. During this phase, another x-ray image is taken, which is called the portal image.

After completion of the treatment, the simulation and portal images are compared by an expert to determine whether the tumor, as identified in the simulation image, has been adequately treated with radiation in the portal image. If the coverage is not complete, the patient is scheduled for a corrective treatment.

The current accepted procedure involves the manual comparison of the portal and simulation images. Accurate 55 manual comparison is quite challenging given the fact that the two x-rays are usually taken by different equipment and at different levels of radiation exposure. The latter fact implies that the tumor area is usually not visible in the portal x-ray, and thus the matching of the portal image with that of the simulation has to rely on manual estimation of dimensions from anatomical landmarks, which will not be clearly visible.

Conventionally, the portal images have been generated by using x-ray film which has to be developed. This is not a 65 serious drawback where only a single or a few treatment beams are utilized. However, this x-ray film is a serious

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limitation in computer controlled radiotherapy where a large number of treatment beams are used. Electronic portal imagers have been developed which generate a digitized image which can be displayed on an electronic display device. Unfortunately, the same problems exist as to the contrast and definition in the portal image generated electronically.

The problem of matching portal images with simulation images is compounded by the fact that the images have differences in orientation caused by skewing, scaling differences, rotation, translation and differences in perspective and curvature.

In stereotactic radiology, digitized computed tomography x-ray images and magnetic resonance images (MRI) have been automatically matched by applying scaling derived from known fixed dimensions of a steel frame which appears in both images. Such fixed landmarks of known dimensions are not available in conventional radiotherapy images.

There is a need, therefore, for apparatus for automatically matching x-ray images and particularly for matching portal images with simulation images in radiotherapy.

There is also a need for such apparatus which can match the portal and simulation images on-line for multiple treatment beams.

There is further need for such apparatus which can match portal images and simulation images having widely different contrast and definition and differences caused by skewing, rotation, scaling, perspective or curvature.

There is an additional need for apparatus for obtaining and maintaining alignment of a patient during computed controlled radiotherapy or for terminating the radiation beam if alignment becomes unacceptable.

SUMMARY OF THE INVENTION

These needs and others are satisfied by the invention which is directed to apparatus for automatically matching an x-ray image with a reference image, and particularly for matching the portal image with a simulation image for determining whether radiotherapy treatment has been adequate or for matching successive portal images for controlling operation of the radiotherapy equipment. In matching images, digitizing means digitizes the x-ray image such as the portal image to generate a first set of digital image signals or digital portal image signals (DPIS) in the case of the portal image. The digitizing means also digitizes the reference image such as the simulation image to generate second digital image signals or digital simulation signals (DSIS). Processing means process these digital image signals to generate matched digital image signals. The processing is performed without any prior knowledge of the physical dimensions of any of the features in the images. Output means generate for instance a display from the matched digital image signals and/or control the treatment/diagnosis equipment.

The processing means includes coarse alignment means which first effect a coarse alignment between the digital portal image signals and the digital simulation image signals. Coarse alignment is initiated by selecting seed points in the portal image represented by the DPIS and in the simulation image represented by the DSIS. Selection of the seed points can be done either interactively using a pointing device such as a mouse to select what appear to be corresponding points on displays of the two images, or automatically through use of x-ray opaque fiducials placed on the patient. In either case, the seed points are used to compute a transform between the two images. Means are then used to

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apply the transform to one of the sets of digital image signals to transform points in that image to the coordinates of the other image thereby producing coarse aligned DPIS and DSIS.

Following coarse alignment, a fine alignment is performed. In implementing the fine alignment, the coarse aligned DPIS and DSIS are first prepared by selecting selected DPIS and selected DSIS for regions of the images which intersect or overlap, and preferably for a region of regular shape such as a rectangle within the intersecting regions of the images. The digital image signals for these regions are then enhanced to produce prepared images with similar dynamic range and pixel intensities. The fine alignment means includes means generating an updated transform from the prepared DPIS and DSIS, and means applying the updated transform to either the coarse or prepared DPIS and DSIS to generate the matched DPIS and DSIS.

The means generating the updated transform comprises means generating motion flow components from the prepared DPIS and DSIS and calculating means calculating the updated transform from the motion flow components. Preferably the means generating the motion flow components generates motion flow gradient components and the calculating means comprises means applying a robust optimization to calculate the updated transform. The means generating updated transform uses successive ascending levels of resolution of the prepared DPIS and DSIS to generate the updated transform.

In the tracking mode, the updated transform is used to track movement between successive sets of digital portal image signals. Tracking can be used to terminate the radiation if patient movement exceeds specified limits, or could be used to operate the patient positioning assembly to maintain the radiation beam in proper alignment with the area to be treated.

The invention can also be used to match x-ray images with other reference images which could be another x-ray image or another type of image.

BRIEF DESCRIPTION OF THE DRAWINGS

A full understanding of the invention can be gained from the following description of the preferred embodiments when read in conjunction with the accompanying drawings in which:

FIG. 1 is a schematic diagram of apparatus for implementing the invention.

FIG. 2a is a simplified illustration of a simulation image to which the invention can applied.

FIG. 2b is a simplified illustration of a portal image to which the invention may be applied.

FIG. 2c is a simplified illustration of a display superimposing the simulation and portal images of FIGS. 2a and 2b utilizing the invention.

FIGS. 3-11 are flow charts of software utilized to implement the invention in the apparatus of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The invention is directed to matching x-ray images with reference images and will be described as applied to matching portal images generated in computer controlled radiotherapy with simulation images. However, it will be understood that the invention has wide application in matching 65 other x-ray images such as those used in diagnosis, for example. As will be seen, the invention also has application

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for tracking motion in successive portal images such as for controlling positioning of a patient or gating of the radiation beam.

Referring to FIG. 1. a simulation setup 1 is used for determining the location of the region such as a tumor within a patient 3 to be treated and for setting up the sequence of treatment beams. The setup equipment includes a gantry 5 mounted for rotation about a horizontal pivot 7 supported by a machine base 9. A low energy, in the kiloelectronvolt range, x-ray beam 11 is directed by a collimator 13 mounted on the gantry 5 along a path which extends transversely through an extension of the pivot 7.

The patient 3 is supported on a patient positioning assembly 15 which includes a couch 17 mounted on a support 19 for three dimensional translation relative to the support. The support 19, in turn, is mounted on a turntable 21. Through translation of the couch 17, rotation of the turntable 21 and rotation of the gantry 5 about the pivot 7, a plurality of treatment beams can be simulated. By sequencing the simulation equipment 1 through the positions required to generate the successive beams, it can be determined whether all of the required beams can be achieved and whether sequencing the movement of the equipment between beams must be adjusted to avoid collisions between the equipment and the patient or between components of the equipment.

The low energy x-ray beam 11 is used to generate simulation images by placement of an x-ray film 23 in line with the x-ray beam 11 on the other side of the patient 3 from the collimator 13. This simulation image is used to position the area of the patient to be treated, such as a tumor, at the isocenter of the setup, which is the intersection of the beam 11 with a projection of the pivot axis 7.

Following completion of the simulation, the patient 3 is transferred to the treatment setup 1'. As shown, the treatment setup at 1' is similar to the simulation setup 1, except that the x-ray beam 11' is in the megaelectronvolt range. A portal image is generated by the treatment setup 1'. This portal image can be captured by an x-ray film as in the simulation setup; however, it is preferred that an electronic portal imager 25 be used. If available, an electronic imager could also be used in place of the x-ray film 23 in the simulation setup 1.

As discussed above, the simulation image and the portal image can be quite different. One of the main reasons for this is the difference in the energy of the beams 11 and 11'. The invention can be used to match the simulation and portal images to determine if the treatment dosage was delivered to the proper treatment area. It can also be used to detect patient movement during treatment to terminate generation of the x-ray beam 11' if a movement exceeds proper limits, or to maneuver the equipment to maintain proper alignment.

The image matching system 27 includes a digitizer 29 which digitizes the simulation image such as produced on the x-ray film 23 and the portal image such as that generated by the electronic portal imager 25. In a more general sense, the matching system 27 matches an x-ray image, such as the portal image, with a reference image such as the simulation image.

The image matching system 27 further includes a processor 31 which includes a module for coarse alignment 33 followed by a module for fine alignment 35. The output of the processor can be matched portal (x-ray) and simulation (reference) images which are displayed on a display device 37. Associated with the display device 37 are interface devices 39 which can include a keyboard 41 and a pointing device 43, such as a mouse or a trackball.

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FIGS. 2a-2c illustrate that the invention can be used to match a portal x-ray image with a simulation reference image. FIG. 2a represents a simulation image 45 generated using the simulation setup 1. The low energy x-rays used for this image produce an image with good contrast and detail. so that the outline 47 of the patient and bony structure 49 are shown as well as the tumor 51. FIG. 2b illustrates the portal image which being taken with the higher energy treatment beam shows the treated area 55 as a uniform dark spot. The irregular edge of the treated area 55 is produced by the leaves used in the collimator 13 to conform the beam 11' generally to the shape of the tumor. The remainder of the portal image 55 shows little detail and does not indicate the location of the bones. As can be seen, the two images 45 and 53 can be translated relative to each other, scaled differently. skewed and rotated (by 90° in the example). The two images can also be different in perspective and in curvature.

The coarse alignment module 33 produces a general alignment of the two images, and then the fine alignment module 35 uses robust motion flow to rapidly and accurately complete matching of the images. The display device 37 can present the matched images in different ways. In one embodiment, the display 37 alternates between the two images at about 6 to 20 Hz, but usually about 12 Hz, so that the observer views the images superimposed as a composite image 59, as shown in FIG. 2c. As can be seen in the example, the treated area 55' in the matched portal image, overlays the tumor 51' in the matched simulation image. In another type of display (not shown), the outline of the treated area from the portal image is projected onto the processed simulation image, so that it can be seen if the targeted tumor was in fact treated.

In performing the coarse alignment, a coarse transformation is applied to the digitized x-ray or portal image signals (DPIS) to convert them to the coordinate system of the digital reference or simulation image signals (DSIS). As will be seen, the information needed to generate this transformation can be generated interactively through selection of what appear to be corresponding points in the two images by the operator interactively using a pointer device 43 or 40 automatically using x-ray opaque fiducials 61 which are placed on the patient in both the simulation setup and the treatment setup (see FIG. 1). The points so generated in either case are referred to as seed points. The coarse transform H from the portal image coordinates to the simulation 45 coordinates is:

The (x y) vector denotes the column and row coordinates of the center of each of the seed points in the corresponding portal and simulation images. The four RotSkewScale components of the matrix describe the full affine transformation that is needed to coarsely align the images. In this stage, the placement of the fiducial or the interactive selection of the seed points need not be accurate as the next stage is able to accommodate for reasonably small deviations.

Using the results of the coarse alignment, the portal image 65 is warped toward the simulation image. Then, overlapping regions of the two images are computer enhanced so that the

corresponding intensity levels are similar. Finally, the motion-flow, or the fine-scale transform is computed so that the portal image glides on the gradient of dissimilarity toward the simulation image. In this stage, a more comprehensive transformation model is used in which the input position vector is represented by:

$$\underline{X}(x) = \begin{bmatrix} 1 & x & y & 0 & 0 & 0 & x^2 & x \cdot y & 0 \\ 0 & 0 & 0 & 1 & x & y & x \cdot y & y^2 & x^2 \end{bmatrix}$$
(EQ. 2)

and the transformation matrix is represented by:

$$Q = [\alpha_0 \alpha_1 \alpha_2 \alpha_3 \alpha_4 \alpha_3 P_0 P_1 c]^T$$
(EQ. 3)

so that the result is:

$$u(x;Q)=X(x)\cdot Q \tag{EQ. 4}$$

where Δ portal (x;Q)=u(x;Q) and portal (x)=X(x). The parameters α_0 through α_1 include the affine transform as in the coarse alignment, whereas the parameters P_0 , P_1 include the perspective transformation, and c covers the deformation that can be caused by breathing, etc.

To recover the parameters of the vector Q we formulate the image dissimilarity as a result of motion-flow, or distance between the two images.

$$I(x,t)=I(x-(X(x)-Q_{f,n+1}))$$
 (EQ. 5)

for $\forall x \in f$, where f is the region of the image we compute the transformation over. In (EQ. 5), I(x) is the intensity function at point x, the image at t+1 is the portal image, and at t is the simulation image. By using various derivation techniques, we formulate the motion-flow using the gradient (or dissimilarity gradient) as below:

$$\nabla h(\underline{X}(x) \cdot Q_i) + \frac{\partial I}{\partial I} = 0$$
 (EQ. 5)

for ∀x ef.

In this stage, a robust regression method is employed, using unconstrained optimization, to calculate the elements of Q (see (EQ. 3)). This technique enables us to cope with the 'reasonably small' deviations from the coarse alignment stage, as well as any residual dissimilarity between the two images. Using the robust technique ensures that only the dominant transformation will be recovered without running into the risk of being affected by the noise and residual errors.

FIGS. 3-11 are flow charts of software which implements the invention. FIG. 3 illustrates the main routine 100 which includes performing a coarse alignment, either interactively at block 110 or automatically at block 126. In both cases a 55 rough approximation of the transformation between the portal image and the simulation image is calculated using Equation 1. The user then has the option of determining whether the rough approximation has provided a satisfactory alignment of the images at 130. If so, the procedure is completed. If not, a fine alignment is performed. As discussed, the invention can also be used to track patient movement, in which case the transformation between the two images is utilized at 140 to roughly determine the updated position of the fiducials. If requested by the user in image matching and during tracking, the images are prepared for the fine alignment at 150. The refined image transformation is then calculated at 160 and if the image

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matching mode is selected as determined at 170, the transform is accomplished and the images are displayed at 180 in the manner discussed above. If the tracking mode has been selected at 190, the routine returns to 140 for generating the next position. The user again has the final decision at 200 to determine whether the image matching is satisfactory. If not, the routine returns to 110 and the rough calculation is re-initiated.

The procedure for calculating the rough approximation of the transformation interactively called for at block 110 in FIG. 3 is illustrated in detail in FIG. 4. The user selects corresponding seed points or areas in the portal image and the simulation image using, for instance, the mouse 43 as indicated at 111. The selected areas or points are then used to compute the rough transformation between the portal image and the simulation image by calling a procedure A as indicated at 112. This rough transform is then used to transform the portal image to simulation image coordinates by calling procedure B as indicated at 113. The images are then displayed on the monitor 37 as indicated at 114.

The details of procedure A used to calculate the rough 20 transform are shown in FIG. 5. If the user has indicated an area as determined at A1, the system automatically selects random points from inside the area as corresponding as indicated at A2. Then, or if the user has selected points rather than an area, the corresponding point pairs are used to 25 calculate the transform parameters using the least squares (LSQ) method as indicated at A3.

The details of procedure B for transforming the portal to simulation coordinates is shown in FIG. 5. First, the row and column limits of the resulting transformed portal image are 30 determined at B1 using the transformation matrix H, which is the inverse of Equation 1. The resulting portal image is then raster scanned at B2, and for each pixel the location is determined using the transformation. The intensity value for each pixel is calculated next using linear interpolation 35 between the surrounding pixel locations in the original portal image.

The routine 124 for performing the coarse alignment automatically using fiducials on the patient is shown in FIG. 7. The x-ray opaque fiducials 61 are detected in both the 40 portal and simulation images at 121 and the corresponding markers are identified at 122. The image transform is then computed at 123 using procedure A of FIG. 5 and the centroid of each of the markers as the seed points. The portal image is then transformed to simulation coordinates using 45 the computed transformation and procedure B of FIG. 6. When in the matching mode as determined at 125, the images are displayed at 126 in the manner discussed above in connection with FIGS. 2a-c.

The routine 150 for preparing the coarse aligned digital 50 image signals for fine alignment is shown in FIG. 8. First, the region of intersection over overlap between the simulation and portal images is calculated at 151 using the transformation of Equation 1. Next, the largest rectangular region that fits within the intersection region is calculated at 152, 55 Other regular geometric shapes, such as a square and so forth, could be used in place of the rectangle. New images representing the rectangular intersection region of the portal and simulation image are formed at 153. These resulting image signals. Various forms of enhancement such as histogram equalization, lapalcian of the Gaussian, high-pass filtering and other techniques are used to produce the prepared images with similar dynamic range and pixel

FIG. 9 illustrates the routine 160 for calculating the updated transformation for a fine alignment. This process is

performed at several levels of resolution of the digital image signals beginning with the lowest resolution, which in the example is about one-eighth resolution. Thus, at 161 the images at the lowest resolution for the prepared portal and simulation images are formed. These images are updated using the latest updated transformation parameters, that is, transformation parameters calculated at the previous level of resolution, at 162. An important part of the invention is that robust motion flow is used to perform the fine alignment. In particular, the motion flow gradient components are generated at 163. Application of motion flow using gradient components is described by M. J. Black and P. Anandan in a paper entitled, "A Framework For The Robust Estimation Of Optical Flow" published in Proc. 4th Intl. Conf. on Computer Vision (ICCV 93). Berlin. Germany, May 1993. Motion flow is applied to the motion required to cause pixels on one image to flow into alignment with corresponding pixels in the other image. Robust motion applies to the motion by which most of the pixels which have moved have moved similarly, while there may be others exhibiting different motion. The updated image transformation parameters are then calculated at 164 using robust optimization. If the upper limit of resolution has not been reached as determined at 165, then the resolution is incremented at 166 and updated transformation parameters are recalculated at the new level of resolution.

When the highest level of resolution has been reached at 165, the final transformation matrix Q is generated at 167. The details of the routine for calculating the updated image transformation parameters using robust optimization of block 164 in FIG. 9 is shown in FIG. 10. As described in the paper by Black and Anandan discussed above, the robust motion is represented by data points called inliers. Those exhibiting other motion are identified as outliers. In the present invention, the data points are the pixel values. The pixels are successively separated into inliers and outliers based upon their contribution to a consistent motion flow vector. The pixels in the inlier set are used to calculate the dominant motion flow, and their contribution to it is dependent on their weight factors which are calculated during the robust optimization.

Referring particularly to FIG. 10, a loop is entered at 164.1 where each of the inlier points is marked using individual weight factors. Initially, the weight factors of the pixels are all set to 1 so that all of the pixels are inliers. At 164.2, an optimization parameter, o, which determines the sensitivity of the procedure to outliers is set. The weight factors are dependent on this parameter, o. The lower the value of o, the more points are eliminated as inliers and the closer the inliers become to the current estimate of the motion flow vector. Hence, a large o is used initially so that all points are included. On successive loops, σ is lowered to eliminate more and more outliers. This lowering of o is referred to as σ scheduling. The σ scheduling must be done carefully. If σ is lowered too fast, a solution may be missed, while on the other hand, lowering o too slowly increases the processing time. In accordance with the invention, σ is lowered depending upon the largest error in the motion flow parameters. Following this, another loop is entered at 164.3 images are then enhanced at 154 to generate prepared digital so in which each of the inlier data points is used in the calculation of the updated values for the transformation parameters of the Q matrix at 164.4. The equations used at 164.4 are derived preferably using the conjugate gradient. although gradient descent can also be used. In addition. motion flow and robust statistics are used in deriving equations for determining the transformation parameters. The error in the transformation parameters, which is the change

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from the last calculation, as well as o, are used at 164.5 to adjust the weight factors for the pixels. When all of the inlier data points/pixels have been used as determined at 164.3. a check is made at 164.6 to determine if the solution has converged to the desired degree. If not, the routine returns to 164. I and the inlier data points are again marked using the updated weight factors.

FIG. 11 illustrates the tracking routine on 140. As indicated at 141, the incremental updates and the transform H and/or Q are combined so that the transform always relates back to the original simulation or reference image. On the initial pass through the tracking routine, the then current portal image replaces the simulation image if used, and then a new portal image is acquired at 143. As tracking continues. successive portal images are matched with the next preceding portal image to generate the updated transform. As indicated at 144, the successive positions of the fiducials or changes in the pattern of the fiducials from successive portal images is used to generate tracking signals for controlling off and/or driving the patient positioning assembly.

While specific embodiments of the invention have been described in detail, it will be appreciated by those skilled in the art that various modifications and alternatives to those details could be developed in light of the overall teachings 25 of the disclosure. Accordingly, the particular arrangements disclosed are meant to be illustrative only and not limiting as to the scope of invention which is to be given the full breadth of the claims appended and any and all equivalents

What is claimed is:

1. Apparatus for automatically matching a portal image with a simulation image, said apparatus comprising:

means digitizing said portal image and simulation image to generate digital portal image signals (DPIS) and 35 digital simulation image signals (DSIS), respectively; processing means processing said DPIS and said DSIS to generate matched DPIS and DSIS; and

output means for generating an output from said matched DPIS and DSIS.

- 2. The apparatus of claim 1. wherein said processing means comprises coarse alignment means generating coarse aligned DPIS and DSIS from said DPIS and DSIS, and fine alignment means generating said matched DPIS and DSIS from said coarse aligned DPIS and DSIS for overlapping 45 regions of said simulation and portal images.
- 3. The apperatus of claim 2, wherein said coarse alignment means comprises means selecting corresponding seed points in said portal image represented by said DPIS and said simulation image represented by said DSIS, means 50 computing a transform between said portal image and said simulation image from said corresponding seed points, and means applying said transform to one of said DPIS said DSIS to generate with the other of said DPIS and DSIS said coarse aligned DPIS and DSIS.
- 4. The apparatus of claim 3, wherein said means selecting corresponding seed points comprises interactive means selecting corresponding points in displays generated from said DPIS and DSIS.
- 5. The apparatus of claim 3, wherein said means selecting 60 response to movement tracked by said tracking means. corresponding seed points comprises means detecting x-ray opaque fiducials in said DPIS and said DSIS, and means identifying corresponding fiducials in said DPIS and DSIS as said corresponding seed points.
- 6. The apparatus of claim 3, wherein said fine alignment 65 means comprises means generating prepared DPIS and DSIS from said coarse aligned DPIS and DSIS, means

generating an updated transform from said prepared DPIS and DSIS, and means applying said updated transform to one of said coarse and prepared DPIS and DSIS to generate said matched DPIS and DSIS.

- 7. The apparatus of claim 2, wherein said fine alignment means comprises means generating prepared DPIS and DSIS from said coarse aligned DPIS and DSIS, means generating an updated transform from said prepared DPIS and DSIS, and means applying said updated transform to one of said coarse and prepared DPIS and DSIS to generate said matched DPIS and DSIS.
- 8. The apparatus of claim 7, wherein said means generating said prepared DPIS and DSIS comprises means selecting selected DPIS and selected DSIS for regions of images represented by said DPIS and DSIS which intersect.
- 9. The apparatus of claim 8, wherein said means generating said prepared DPIS and DSIS further includes means enhancing said selected DPIS and DSIS.
- 10. The apparatus of claim 9, wherein said means selectthe radiotherapy equipment such as turning the beam on and 20 ing said selected DPIS and selected DSIS further includes means selecting DPIS and DSIS within a portion of regions of images represented by said DPIS and DSIS, which have a predetermined regular shape.
 - 11. The apparatus of claim 7, wherein said means generating said updated transform comprises means generating motion flow components from said prepared DPIS and DSIS and calculating means calculating said updated transform from said motion flow components.
 - 12. The apparatus of claim 11, wherein said means 30 generating motion flow components generates motion flow gradient components, and said calculating means comprises means applying a robust optimization to calculate said updated transform.
 - 13. The apparatus of claim 12, wherein said means generating said updated transform comprises utilizing said means generating motion flow gradient components and said calculating means repetitively using successive ascending levels of resolution of said prepared DPIS and DSIS.
 - 14. The apparatus of claim 7, wherein said means gener-40 ating said updated transform comprises means using successive ascending levels of resolution of said prepared DPIS and DSIS to generate said updated transform.
 - 15. The apparatus of claim 7, wherein said means generating said updated transform comprises means applying robust motion flow to said prepared DPIS and DSIS.
 - 16. The apparatus of claim 15, wherein said means applying robust motion flow to said prepared DPIS and DSIS applies robust motion flow to successive ascending levels of resolution of said DPIS and DSIS.
 - 17. The apparatus of claim 1, wherein said output means comprises display means generating a display from said matched DPIS and DSIS.
 - 18. The apparatus of claim 1, wherein said output means comprises tracking means tracking movement in said image 55 represented by said DPIS.
 - 19. The apparatus of claim 18, wherein said output means further includes positioning means positioning a patient relative to a radiation beam which generates said portal image, and means controlling said positioning means in
 - 20. The apparatus of claim 18 wherein said output means includes means controlling generation of a radiation beam producing said portal image in response to movement tracked by said tracking means.
 - 21. Apparatus for matching portal images to control radiotherapy/diagnosis equipment, said apparatus compris-

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means digitizing successive portal images to generate successive sets of digital portal image signals (DPIS);

tracking means tracking movement between successive sets of DPIS

- 22. The apparatus of claim 21, wherein said tracking means comprises means generating an updated transform between successive portal images by applying robust motion flow to said successive sets of DPIS and means using said updated transform to track said movement between said 10 successive sets of DPIS.
- 23. The apparatus of claim 22, wherein said means generating said updated transform comprises means generating motion flow components from said successive sets of DPIS, and means calculating said updated transform 15 between successive portal images using said motion flow components.
- 24. The apparatus of claim 23, wherein said means generating motion flow components generates motion flow gradient components, and wherein said calculating means 20 comprises means applying a robust optimization to calculate said updated transform.
- 25. The apparatus of claim 24, wherein said means generating said updated transform comprises means utilizand said calculating means repetitively using successive ascending levels of resolution of said successive sets of DPIS.
- 26. Apparatus for automatically matching an x-ray image with a reference image, said apparatus comprising:

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means digitizing said x-ray image and reference image to generate first digital image signals and second digital image signals, respectively;

processing means processing said first and second digital signals without input of any physical dimensions of any features within said images to generate matched digital image signals; and

display means generating a display from said matched digital image signals.

27. The apparatus of claim 26 wherein said processing means comprises coarse alignment means generating coarse aligned digital images signals from said first and second digital image signals, and fine alignment means generating a transform between said coarse aligned digital image signals for overlapping regions of said x-ray and reference images utilizing robust motion flow, and means applying said transform to one of said coarse aligned digital image signals to generate said matched digital image signals.

28. The apparatus of claim 27 wherein said fine alignment means comprises means enhancing said coarse aligned digital image signals to generate prepared coarse aligned image ing said means generating motion flow gradient components 25 signals having similar dynamic ranges and intensities, and means generating said transform between said prepared coarse aligned digital image signals utilizing robust motion

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRRECTION

Page 1 of 2

PATENT NO. : 5,784,431

DATED : July 21, 1998 INVENTOR(S) : Kalend, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

At [56] References Cited, please add the following patents and publications.

OTHER DOCUMENTS

| 0.71211.00001110117.0 |
|---|
| Digital portal image registration by sequential anatomical matchpoint and image |
| correlations for real-time continuous field alignment verification, Brian J. McParland |
| and J. Carl Kumaradas, Phys. 22(7), July 1995, pp. 1063-1075. |
| Neutral Network Object Recognition for Inspection of Patient Setup in Radiation Therapy |
| Using Portal Images, Susan S. Young, et al., 1996 IEEE, pp. 3418-3421. |
| |

UNITED STATES PATENT AND TRADEMARK OFFICE **CERTIFICATE OF CORRECTION**

Page 2 of 2

PATENT NO. : 5,784,431

DATED

: July 21, 1998

INVENTOR(S) : Kalend, et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 9, line 37, after "means" insert --comprising coarse alignment means--.

Column 9, line 38, after "generate" insert -- coarse aligned DPIS and DSIS, means determining from said coarse aligned DPIS and DSIS overlapping regions of said simulation and portal images, and fine alignment means generating--.

Column 9, line38, after "DSIS" insert -- from said coarse aligned DPIS and DSIS for said overlapping regions of said simulation and portal images--.

Cancel Claim 2.

Column 9, line 47, change "2" to --1-.

Column 10, line 5, change "2" to --1--.

Signed and Scaled this

Twenty-third Day of February, 1999

Attest:

Q. TODO DICKINSON

Attesting Officer

Armire Commissioner of Patents and Trademarks

EXHIBIT B

Case 2:07-cv-00491-AJS Document 20 Filed 05/14/2007 Page 1 of 8

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF WESTERN PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) |
|------------------------------|--------------------------------------|
| |) |
| Plaintiff, |) |
| |) Civil Action No. 2:07-cv-00491-AJS |
| ٧. |) |
| |) (JURY TRIAL DEMANDED) |
| VARIAN MEDICAL SYSTEMS, INC. |) |
| |) FILED ELECTRONICALLY |
| |) |
| Defendant. |) |

VARIAN MEDICAL SYSTEMS INC.'S ANSWER AND COUNTERCLAIM

ANSWER

Varian Medical Systems, Inc. ("Varian") answers the Complaint of University of Pittsburgh ("Plaintiff") as follows:

- 1. Varian is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 1 of the Complaint, and on that ground Varian denies these allegations.
 - 2. Admitted.
 - 3. Admitted.
 - 4. Admitted.
- 5. Varian is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 5 of the Complaint, and on that ground Varian denies these allegations.
 - 6. Varian denies each and every allegation of paragraph 6 of the Complaint.
 - 7. Varian denies each and every allegation of paragraph 7 of the Complaint...

- 8. Varian denies each and every allegation of paragraph 8 of the Complaint.
- 9. Varian denies each and every allegation of paragraph 9 of the Complaint.
- 10. Varian denies each and every allegation of paragraph 10 of the Complaint.

AFFIRMATIVE DEFENSES

A. FAILURE TO STATE A CLAIM

11. As its first separate and affirmative defense, Varian alleges that Plaintiff has failed to state a claim upon which any relief may be granted against Varian.

B. PATENT INVALIDITY

12. As its second separate and affirmative defense, Varian alleges that one or more claims of the Patents-in-Suit are invalid because they fail to meet the conditions of patentability of 35 U.S.C. §§ 101, 102, 103, and/or 112.

C. ESTOPPEL

As its third separate and affirmative defense, Varian alleges that Count I of the Complaint is barred, in whole or in part, under the doctrine of estoppel. By way of example, and without limitation, Varian alleges that by reason of the proceedings in the United States Patent and Trademark Office during the prosecution of the applications for one or more of the Patents-in-Suit, specifically the admissions, representations, and amendments made on behalf of the applicants for said patents, Plaintiff is estopped from (1) asserting any construction of the claims of said patents such that they would read upon any product made, used, sold, or offered for sale in, or imported into, the United States by Varian, or (2) extending the coverage of the claims of said patents under the doctrine of equivalents such that they would read upon any such Varian product.

D. LACHES

14. As its fourth separate and affirmative defense, Varian alleges that Count I of the Complaint is barred, in whole or in part, under the doctrine of laches. By way of example, and without limitation, Varian alleges, on information and belief, that plaintiff's claims under the Patents-In-Suit are barred by the doctrine of laches because (1) Plaintiff knew of Varian's allegedly infringing actions, (2) Plaintiff inexcusably failed to pursue its infringement claims in a timely and diligent manner from the time it became aware it had claims against Varian, and (3) Varian has been materially prejudiced by Plaintiff's inexcusable lack of diligence.

E. AUTHORIZATION AND CONSENT OF THE UNITED STATES GOVERNMENT

15. As its sixth separate and affirmative defense, Varian alleges that it used and/or manufactured some of the products accused of infringing the Patents-in-Suit for and with the authorization and consent of the United States Government and that, accordingly, plaintiff's claims against Varian with respect to such products may not be pursued in this Court and are subject to other limitations pursuant to 28 U.S.C. § 1498.

PRAYER FOR RELIEF

Varian prays that this Court enter judgment:

- A. That plaintiff takes nothing by way of Count I for patent infringement.
- B. That plaintiff be denied any remedies available under 35 U.S.C. §284.
- C. That the Court deny plaintiff any injunction relief;
- D. That the Court deny plaintiff any other relief as to Count I;
- E. That the Court declare this to be an exceptional case and award Varian its attorney's fees as the prevailing party pursuant to 35 U.S.C. §285;

- F. That the Court award Varian its costs of suit; and
- G. That the Court award Varian any other relief as the Court deems proper.

VARIAN MEDICAL SYSTEMS, INC.'S COUNTERCLAIMS

Counter-Claimant Varian Medical Systems, Inc. submits this counterclaim pursuant to Federal Rule of Civil Procedure 13. Varian alleges:

- 1. Varian's first cause of action is for declaratory relief pursuant to the Declaratory Judgment Act, 28 U.S.C. §§ 2201 et seq. Varian's first cause of action arises under the patent laws of the United States. 35 U.S.C. §§ 100 et seq. This Court has subject matter jurisdiction over Varian's counterclaim under 28 U.S.C. §§ 1331, 1338, and 1367.
- 2. Varian is a Delaware corporation maintaining its principal place of business at 3100 Hansen Way, Palo Alto, California.
- 3. Upon information and belief, Counter-Defendant University of Pittsburgh ("Plaintiff") is an academic institution with its principal place of business in Pittsburg, Pennsylvania.
- 4. This Court has personal jurisdiction over Plaintiff at least because Plaintiff submitted itself to this Court's personal jurisdiction by suing Varian in this Court.
 - 5. Venue is proper in this Court pursuant to 28 U.S.C. §1391(b).

FIRST COUNTERCLAIM

6. As its first counterclaim for declaratory relief, Varian alleges that the '554 and '431 patents are invalid because they fail to meet the conditions of patentability of 35 U.S.C. §§ 101, 102, 103, and/or 112.

SECOND COUNTERCLAIM

7. As it second counterclaim for declaratory relief, Varian alleges that Varian's products do not infringe any claims of the '554 and '431 patents.

PRAYER FOR RELIEF

WHEREFORE, Varian prays that this Court enter judgment:

- A. That the '554 and '431 patents be invalid;
- B. That Varian's products do not infringe any of the claims of the '554 and '431 patents;
- C. That Plaintiff be ordered to pay the costs and reasonable attorneys' fees incurred by Varian pursuant to 35 U.S.C. § 285; and
- D. That Varian be granted such other and further relief as this Court deems just and warranted under the circumstances.

JURY DEMAND

Varian demands a trial by jury as to all issues so triable.

Respectfully submitted,

PICADIO SNEATH MILLER & NORTON P.C.

1s/ Henry M. Sneath

Henry M. Sneath (PA 40559) Shannon M. Clougherty (PA 88586) 4710 U.S. Steel Tower 600 Grant Street Pittsburgh, Pennsylvania 15219-2702 Attorneys for Defendant Varian Medical Systems, Inc. Case 2:07-cv-00491-AJS Document 20 Filed 05/14/2007 Page 6 of 8

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Dated: May 14, 2007

US_WEST:260231407.1 3424-81 ZL0/ZL0

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the VARIAN MEDICAL SYSTEMS INC.'S ANSWER AND COUNTERCLAIM (which has been electronically filed and is available for viewing and downloading from the ECF system) has been served upon all parties either individually or through counsel via:

| | Hand-Delivery |
|-------|---|
| | Facsimile |
| | First Class, US Mail, Postage Prepaid |
| ····· | Certified Mail-Return Receipt Requested |
| X | ECF Electronic Service |

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Case 2:07-cv-00491-AJS Document 20 Filed 05/14/2007 Page 8 of 8

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Dated: May 14, 2007

(s/ Henry M. Sneath

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EXHIBIT C

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH

Case 2:07-cv-00491-AJS

Plaintiff,

Judge Arthur J. Schwab

V.

Filed Electronically

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

CASE MANAGEMENT ORDER

AND NOW, this 4 day of May, 2007,

IT IS ORDERED that this action is placed under the Local Patent Rules of this Court for pretrial proceedings.

IT IS ORDERED that counsel shall confer with their clients prior to all scheduling, status, or pretrial conferences to obtain authority to participate in settlement negotiations which may be conducted or ordered by the Court.

IT IS FURTHER ORDERED that compliance with provisions of Local Rule 16 and the Local Patent Rules shall be completed as follows:

- (1) Plaintiff and Defendant may modify the default protective order currently in place and reach agreement on a final protective order by 5:00 p.m. EST on May 23, 2007. If such an agreement cannot be reached, Plaintiff and Defendant may each submit a proposed protective order to the Court by Noon EST on May 24, 2007.
- Plaintiff and Defendant will exchange the information required by Federal Rule of Civil Procedure 26(a)(1) by May 30, 2007; they will produce the documents required by Local Patent Rule 3.1 by May 30, 2007; and they will produce any other documents identified in their respective initial disclosures by June 11, 2007. Plaintiff and Defendant further agree that as part of Defendant's initial disclosures, Defendant will produce technical information for current products and current versions of software. Defendant will diligently search for archived technical information, and Plaintiff and Defendant further agree that Defendant will produce said archived technical information as soon as possible.

PLAINTIFF'S FURTHER PROPOSAL:

Plaintiff and Defendant further agree not to conduct the ENE until after Defendant has produced all technical information for both current and archived versions of software and Plaintiff has had adequate time to review such technical information and software.

Any such documents that are obtained, identified, located, or generated after June 11, 2007 in the exercise of reasonable diligence shall be produced on an ongoing basis in accordance with the Federal Rules of Civil Procedure.

DEFENDANT'S FURTHER PROPOSAL:

Plaintiff and Defendant further agree that Defendant will use its best efforts to timely produce all technical information for both current and archived versions of software-and that Plaintiff will use its best efforts to timely review of such information to facilitate an ENE prior to July 16, 2007.

Any such documents that are obtained; identified, located, or generated after June 11, 2007 in the exercise of reasonable diligence shall be produced on an ongoing basis in accordance with the Federal Rules of Civil Procedure.

(3) The Parties shall exchange privilege logs beginning on **June 18, 2007**, and then on an ongoing basis as provided for by the Federal Rules of Civil Procedure.

DETERMINED

All privileged documents shall be logged no later than 30 days before the close of fact discovery; and any opinion of counsel upon which either party intends to rely shall be produced along with all materials within the scope of the waiver of the attorney-client privilege and/or the attorney work product doctrine within 60 days following the Court's entry of its ruling on Claim Construction. Also within 60 days following the Court's entry of its ruling on Claim Construction, the party producing any such opinion shall disclose the identity of the opinion counsel, the recipient of each opinion, and if different the person who relied on each opinion. The party receiving the documents shall have 30 days from receipt thereof to depose the opinion counsel, the recipient of each opinion, and if different, the person who relied on each opinion.

(4) The parties shall move to amend the pleadings or add new parties by June 15, 2007.

DEFENDANT'S FURTHER PROPOSAL:

The above deadline shall be subject to Defendant's reservation of its right to assert an inequitable conduct defense at a later date, and further subject to either party's right to seek leave to make other amendments at a later time based on new information discovered through the exercise of reasonable diligence and under the standards set forth in Federal Rule of Civil Procedure 15 and applicable case law.

(5) The party claiming patent infringement must serve on all parties a Disclosure of Asserted Claims and Infringement Contentions by **June 15, 2007**.

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- (6) The party claiming non-infringement and/or invalidity must serve on all parties a Disclosure of Non-Infringement and Invalidity Contentions by **July 2, 2007**.
- (7) The parties will simultaneously exchange Proposed Claim Terms and Phrases for Construction by **July 12, 2007**.
- (8) The parties shall complete the Court-ordered ADR process on or before **July 16, 2007** and submit a report to the Court regarding the outcome of the process on or before **July 23, 2007**.
- (9)(a) The parties shall meet and confer by August 3, 2007, in order to identify claim terms and phrases that are in dispute, and claim terms and phrases that are not in dispute.
- (9)(b) The parties shall prepare and file a Joint Disputed Claim Terms Chart by August 15, 2007 according to LPR 4.2. Each party shall also file with the Joint Disputed Claim Terms Chart an appendix containing a copy of each item of intrinsic evidence cited by the party in the Joint Disputed Claim Terms Chart.
- (9)(c) The parties shall discuss with each other and then suggest to the Court by August 15, 2007 their proposed process for a Claim Construction hearing, including whether the parties intend to use extrinsic evidence (including lay and/or expert witnesses) during the Claim Construction hearing.
- (9)(d) In the event expert witnesses are to be used, the parties propose the following schedule of expert reports and discovery in connection with those witnesses:
 - (i) Date by which the parties' expert reports regarding claim construction should be filed **August 15, 2007**.
 - (ii) Date by which depositions of the parties' expert(s) regarding claim construction should be completed **September 4, 2007**.
- (10) The parties shall complete fact discovery by October 5, 2007, and all interrogatories, depositions, requests for admissions, and requests for production shall be served within sufficient time to allow responses to be completed prior to the close of discovery.
- (11) Plaintiff shall file and serve an Opening Claim Construction Brief, and an identification of extrinsic evidence, according to LPR 4.3(a) and (b), by October 19, 2007.
- (12) Defendant shall file and serve a Response to the Opening Claim Construction Brief, an identification of extrinsic evidence and any objections to extrinsic evidence, according to LPR 4.3(c) and (d), by **November 2, 2007**.
- (13) Plaintiff may serve and file a Reply directly rebutting Defendant's Response, and any objections to extrinsic evidence, according to LPR 4.3(e) by **November 9, 2007**.
- The Court will conduct a hearing on the issue of Claim Construction on November 29, 2007 at 9:00 au.
- (15) The parties propose that the Court schedule a further Case Management Conference to occur after the Court issues its Claim Construction order for the purpose of issuing a further scheduling order addressing deadlines for subsequent events. The parties will meet and confer regarding proposed deadlines and file their joint or separate proposals with the Court in advance of that Case Management Conference.

IT IS SO ORDERED.

United States District Judge

For Plaintiff:

Is/ Rita E. Tautkus

Daniel Johnson, Jr. (admitted p.h.v.) Rita E. Tautkus (admitted p.h.v.) Allison K. Young (admitted p.h.v.) 2 Palo Alto Square 3000 El Camino Real, Suite 700 Palo Alto, CA 94306 (650-843-4000)

For Defendant:

1s/ Henry M. Sneath

Henry M. Sneath (Pa. I.D. 40559) Shannon M. Clougherty (Pa. I.D. 88586) Picadio Sneath Miller & Norton, P.C. 600 Grant Street - 4710 U.S. Steel Building Pittsburgh, PA 15219-2702 (412-288-4013)

EXHIBIT D

Cass 6:2007242-04200708 Page 4 20 for 2

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

Plaintiff,

٧.

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

ELECTRONICALLY FILED

Civil Action No. 2:07-cv-00491-AJS

Judge Arthur J. Schwab

ORDER OF COURT

AND NOW, to-wit, this 29th day of TWW, 2007, upon consideration of the foregoing Motion, it is hereby ORDERED, ADJUDGED and DECREED that Varian Medical Systems, Inc.'s Motion to Compel Plaintiff, University of Pittsburgh, to Provide Further Infringement Contentions and for Protective Order is DENIED. Defendant shall serve its Non-Infringement and Invalidity Contentions on July 2, 2007.

BY THE COURT:

EXHIBIT E

Case 2:07-cv-00491-AJS

Document 69

Filed 09/06/2007

Page 1 of 1

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) |
|-------------------------------|-----------------------------------|
| Plaintiff, |)) |
| v. | Civil Action No. 07-CV-0491 (ajs) |
| VARIAN MEDICAL SERVICES, INC. |) |
| Defendant. |) |

ORDER

AND NOW, this <u>6</u> day of <u>SoftmBa</u>, 2007, after consideration of the foregoing Motion to Quash and Objections of non-party Eckert Seamans Cherin & Mellott, LLC ("ESCM"), IT IS HEREBY ORDERED that said Motion is granted and ESCM shall not be required to produce for inspection and copying the documents and objects described in the Subpoena in Civil Action served on ESCM by Defendant Varian Medical Services, Inc. on August 6, 2007.

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defendant may

United States District Court Judge

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EXHIBIT G

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

Plaintiff,

07cv0491

ELECTRONICALLY FILED

v.

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

ORDER OF COURT RE: DEPOSITION SCHEDULE

AND NOW, this 5th day of October, 2007, upon consideration of the Plaintiff University of Pittsburgh's Emergency Motion to Compel Defendant to Conduct Depositions in Compliance with Court Orders (doc. no. 72); Defendant Varian Medical Systems, Inc.'s Emergency Counter-Motion to Compel Plaintiff to Cooperate in Deposition Scheduling (doc. no. 76); and response thereto (doc. no. 81); it is hereby ORDERED, ADJUDGED, and DECREED that the foregoing Motions are GRANTED in part and DENIED in part, as follows:

1. Since counsel for the parties have been unable or unwilling to establish a mutually agreeable deposition schedule for certain depositions, and since the parties through the above referenced Motions have asked the Court to micro-manage the deposition schedule, the Court will do so.

Case 2:07-cv-00491-AJS

Document 83

Filed 10/05/2007

Page 2 of 3

- 2. Defendant shall produce the following individuals for depositions, and Plaintiff shall take depositions in Pittsburgh, PA, as follows:
 - a. Defendant's Rule 30(b)(6) witness(es) on topics 9, 10, 14, 15, 17, 21, 22(b)-(c), 23, and 24 of Plaintiff's Notice of Rule 30(b)(6) Deposition and Rule 30(b)(5) Request for Production of Documents (excluding privileged information)
 - b. Stan Mansfield

10/17/07

c. Peter Munro

10/18/07

- 3. Plaintiff shall produce the following individuals for depositions, and Defendant shall take depositions in Pittsburgh, PA, as follows:
 - a. Plaintiff's Rule 30(b)(6) witness(es) on 10/22-23/07 topics 4, 16-18, 20, 26-27, and 31-41 of Varian's Notice of Deposition of Plaintiff University of Pittsburgh Pursuant to FRCP 30(b)(6) (excluding privileged information)
 - b. Dr. Joel Greenberger (not to exceed 10 10/24-25/07 hours in total)
 - c. Charalambos Athanassiou (unless plaintiff's counsel files on or before 10/18/07 an appropriate affidavit demonstrating good faith efforts of plaintiff's counsel to secure the appearance of deponent)
- 4. Any party who fails to produce any of the above deponents on the above schedule shall be sanction in the amount of \$20,000 per deposition.

Case 2:07-cv-00491-AJS

Document 83

Filed 10/05/2007

Page 3 of 3

5. Any party responsible for taking any of the above depositions who fails to conduct said deposition(s) on the above schedule shall be sanctioned in the amount of \$20,000 per deposition.

- 6. The respective parties' request for attorney fees, travel expenses and/or other costs are DENIED.
- 7. Discovery closes today on October 5, 2007 as previously ordered, except as provided above. Any discovery, including Rule 30(b)(6) depositions, beyond the above would violate prior Orders of Court.

s/ Arthur J. Schwab
Arthur J. Schwab
United States District Judge

cc: All Registered ECF Counsel and Parties

Escamilla, Diane

From: ecf_intake_pawd@pawd.uscourts.gov

Friday, October 05, 2007 9:38 AM Sent:

To: pawd_ecf@pawd.uscourts.gov

Subject: Activity in Case 2:07-cv-00491-AJS UNIVERSITY OF PITTSBURGH v. VARIAN MEDICAL

SYSTEMS, INC. Order on Motion to Compel

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U.S. District Court

Western District of Pennsylvania

Notice of Electronic Filing

The following transaction was entered on 10/5/2007 at 12:38 PM EDT and filed on 10/5/2007

Case Name:

UNIVERSITY OF PITTSBURGH v. VARIAN MEDICAL SYSTEMS, INC.

Case Number:

2:07-cv-491

Filer:

Document Number: 83

Docket Text:

ORDER granting in part and denying in part [72] Motion to Compel; granting in part and denying in part [72] Motion for Discovery; granting in part and denying in part [76] Motion to Compel. Signed by Judge Arthur J. Schwab on 10/5/07. (ms)

2:07-cv-491 Notice has been electronically mailed to:

John R. Kenrick jkenrick@eckertseamans.com

Henry M. Sneath hsneath@psmn.com, dmeyer@psmn.com

Christopher K. Ramsey cramsey@morganlewis.com, dbilski@morganlewis.com,

ddugas@morganlewis.com, kxander@morganlewis.com, slewis@morganlewis.com,

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M. Brendan Smith mbsmith@orrick.com

Bradford A. Cangro bcangro@morganlewis.com

Michael F. Heafey mheafey@orrick.com

2:07-cv-491 Filer will deliver notice by other means to:

The following document(s) are associated with this transaction:

Document description: Main Document

Original filename:n/a

Electronic document Stamp:

[STAMP dcecfStamp_ID=1098469114 [Date=10/5/2007] [FileNumber=1120286-0] [a84dc0d0978ccc9edfd4903d0beab92bd5707f42905e89c09a32641cb6ded645891 c935ba63bee851a98c3e8228e10c7c4d58b7f7b2f37fda28a1c19c6b9a5ac]]

EXHIBIT H

Case 3:08-cv-02973-MMC

Case 2:07-cv-00491-AJS Document 93 Page 1 of 1 Filed 10/15/2007 IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) ELECTRONICALLY FILED |
|--|---|
| Plaintiff, |) |
| V. |) Civil Action No. 2:07-CV-00491-AJS |
| VARIAN MEDICAL SYSTEMS, INC. | Judge Arthur J. Schwab |
| Defendant. |) |
| | ORDER |
| AND NOW, this $15th$ day of | <u>OCTOBEY</u> , 2007, upon |
| consideration of Plaintiff's Motion to Clarify | Order of Court Re: Deposition Schedule, it is |
| hereby ORDERED, ADJUDGED and DECF | REED that Plaintiff's Motion to Clarify Order of |
| Court Re: Deposition Schedule is GRANTE | D. The Court hereby clarifies that Dr. Joel |
| Greenberger shall not be subject to more than | n 10 hours of deposition time in this case, which |
| includes the time already provided for Dr. G | reenberger's deposition on September 21, 2007. |
| The Ho | onorable Arthur J. Schwab |

United States District Judge

EXHIBIT J

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

Plaintiff,

07cv0491

ELECTRONICALLY FILED

v.

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

ORDER ADOPTING SPECIAL MASTER'S REPORT AND RECOMMENDATION (DOC. NO. 254) IN PART; AND GRANTING DEFENDANT'S MOTION FOR SUMMARY JUDGMENT FOR LACK OF STANDING (DOC. NO. 127)

A. Defendant's Motion for Summary Judgment for Lack of Standing (Doc. No. 127)

On November 21, 2008, defendant filed a Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing (doc. no. 127). In essence, defendant sought dismissal of the case, arguing that since plaintiff was not the sole owner of the patents-in-suit because non-party CMU is a co-owner thereof, plaintiff lacks standing to sue for patent infringement. Said Motion was assigned to the Special Master pursuant to Text Order, dated November 26, 2007, and the matter thereafter was thoroughly briefed. See doc. nos. 127, 128, 130, 159, 160, 167, 170, 172.

B. Prior Related Order of Court

Instead of waiting for a ruling on said Motion by the Special Master, plaintiff filed with this Court, on December 5, 2007, a document entitled "Plaintiff University of Pittsburgh's Motion Pursuant to Federal Rule of Civil Procedure 19 to Join Carnegie Mellon University" (doc. no. 149). Defendant responded thereto with a document entitled "Defendant Varian

Medical Systems, Inc.'s Opposition to Plaintiff University of Pittsburgh's Motion Pursuant to Federal Rule of Civil Procedure 19 to Join Carnegie Mellon University" (doc. no. 162). By Order dated December 14, 2007 (doc. no. 168), the Court denied said Motion pursuant to the June 4, 2007 Case Management Order (doc. no. 30), because said Motion was untimely in that new parties were to be added approximately 6 months earlier, by June 15, 2007, and discovery previously had closed on October 5, 2007, except for specific limited discovery. See Case Management Order of June 4, 2007 (doc. no. 30).

Importantly, this denial (doc. no. 168) was consistent with the ruling of the Court denying, as untimely, defendant's Motion to Amend Answer (doc. no. 236) to add an affirmative defense and counterclaim of inequitable conduct. See doc. no. 236. Although plaintiff vigorously and successfully opposed this motion of defendant as untimely, plaintiff sought to add a new party (CMU) in a more untimely manner.

C. Report and Recommendation of Special Master (doc. no. 254)

The Special Master on March 10, 2008, by Report and Recommendation, recommended that said defendant's Motion for Summary Judgment for Lack of Sanding (doc. no. 127) be granted. The Special Master found that (a) the case must be dismissed if a co-owner of the patents-in-suit is not joined in the action; (b) CMU is a co-owner of the patents-in-suit, and at the time of the commencement of the action (and to the present time) had rights in the patents-insuit, despite the transfer of certain substantial rights; and (c) CMU thus is a necessary party to this action. Thereafter, the Special Master "recommended that the District Court grant the Motion for Summary Judgment "1 This Court agrees with the analysis of the Special Master on this legal point, and approves and adopts the Report and Recommendation, in part, that the

¹The Special Master recommended the dismissal to be "without prejudice."

Motion for Summary Judgment for Lack of Standing (doc. no. 127) should be granted.

D. **Dismissal With Prejudice**

The next issue is whether the dismissal should be with or without prejudice. This issue has two (2) parts as follows: (1) Is the failure to join CMU as a necessary party correctable by adding CMU to the action now, after commencement of the case? - - an issue not addressed by Special Master; and (2) if the answer thereto is affirmative, should plaintiff in this particular case be permitted to add CMU as a party, approximately ten (10) months after the time to add new parties has closed, and approximately six (6) months after the close of discovery (see doc. no. 30), by this Court vacating its Order of December 14, 2007 (doc. no. 168) which denied plaintiff's prior Motion to Join CMU (doc. no. 149), and thus permitting plaintiff to file an Amended Complaint adding CMU?²

The Case Must be Dismissed Because CMU Should Have Been Joined at the a. **Commencement of the Action**

Generally, United States patent law requires that all co-owners normally must join as plaintiffs in an infringement suit. International Nutrition Co. v. Horphag Research Ltd., 257 F.3d 1324, 1331 (Fed Cir. 2001). Where one co-owner possesses an undivided part of the entire patent, the joint owner must join all other co-owners to establish standing. Israel Bio-

²The Report and Recommendation stated as follows: "Although we recommend that the motion for summary judgment be granted, we recommend that it be granted without prejudice to UPitt to file an amended complaint, within thirty days, in which CMU is added as a party plaintiff, which would correct the standing deficiency. The interests of justice and judicial economy weigh in favor of permitting an amendment to the complaint given the substantial time and resources that the parties have devoted to this case, the apparent willingness of CMU to join in the action, and the fact that CMU is subject to the jurisdiction of the Court. In the alternative, we recommend that the District Court vacate its order dated December 14, 2007, denying UPitt's motion to join. * * * We recommend that the motion of Varian Medical System's Inc. for summary judgment be granted without prejudice to UPitt filing an amended complaint in which CMU is added as a party plaintiff. In the alternative, we recommend that the District Court vacate the order dated December 14, 2007." Doc. no. 254 at 10 and 11.

Engineering Project v. Amgen Inc., 401 F.3d 1299, 1305 (Fed Cir. 2005) (citing Prima Tek II, L.L.C. v. A-Roo Co, 222 F.3d 1372, 1377 (Fed Cir. 2000)). A contrary requirement would be in conflict with the text of Rule 19(a) of the Federal Rules of Civil Procedure. ("shall be joined as a party in the action if . . . the person claims an interest relating to the subject of the action and is so situated that the disposition of the action in the person's absence may . . . leave any persons already parties subject to substantial risk of incurring double, multiple, or otherwise inconsistent obligations by reason of the claimed interest.").

The majority of the authority holds simply that the co-owners must be joined and is silent on the issue of at what point they must be joined to the suit. However, one case from the Federal Circuit provides some guidance. In International Gamco, Inc. v. Multimedia Games, Inc. the Court stated:

Allowing a licensee, even one with exclusive rights to the patent for a particular field of use, to sue in its own name alone poses a substantial risk of multiple suits and even multiple liabilities against an alleged infringer for a single act of infringement. To alleviate this risk, this court's prudential standing requirement compels an exclusive licensee with less than all substantial rights, such as a field of use licensee, to join the patentee before initiating suit.

International Gamco, Inc. v. Multimedia Games, Inc., 504 F.3d 1273, 1278 (Fed Cir. 2007). Also, the requirement that the plaintiffs be joined at inception of the suit may be implied from the lack of authority found holding that the plaintiffs need not be joined at the inception of the lawsuit.

b. The Case Also Must be Dismissed Because of the Plaintiff's Untimely Attempt to Add CMU as a Party

Additionally, this Court declines to vacate its prior Order (doc. no. 168) denying plaintiff's Motion to Join CMU (doc. no. 149). Plaintiff obviously knew of CMU's existence and its residual rights in the patents-in-suit, and chose not to join CMU, at the inception of this case. Whether plaintiff's very sophisticated patent counsel made this tactical decision not to join CMU in order to make discovery of CMU as a non-party more difficult for defendant, or for some other tactical reason, the Court does not know. However, plaintiff's argument that since some discovery has been conducted relating to CMU, CMU can be added as a party, and the case can simply proceed, is not credible, as any review of the docket will establish. The request to add CMU was untimely and unfair to defendant on December 5, 2007 (doc. no. 149), and it is even more so now four (4) months later.³

Therefore, this Court respectfully rejects the Special Master's suggestion that this Court permit plaintiff to add CMU as a party at this very late date, and likewise declines to vacate this Court's Order of December 5, 2007 (doc. no. 168) denying plaintiff's Motion to Add CMU (doc. no. 149), for the reasons stated above.

³Defendant continues to oppose the untimely addition of non-party CMU to the litigation, including because of the additional expense of the litigation to deal with the CMU discovery and other issues; and requests a straight-forward ruling on Varian Medical System, Inc.'s Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing (doc. no. 127). The Court agrees.

CONCLUSION

Therefore, the Court will adopt in part the Report and Recommendation of the Special Master (doc. no. 254); the Court will sustain the objections contained in Defendant/ Counterclaimant Varian Medical System Inc.'s Objections to Report and Recommendation of Special Master Re: Motion for Summary Judgment for Lack of Standing (doc. no. 256) relating to vacating the December 5, 2007 Order (see doc. nos. 255, 271, 272, 281); and the Court grants the Motion for Summary Judgment for Lack of Standing (doc. no. 127) and dismisses this action with prejudice.4

SO ORDERED this 30th day of April, 2008.

s/ Arthur J. Schwab Arthur J. Schwab United States District Judge

All Registered ECF Counsel and Parties cc:

⁴The Court's Order of Court Denying Plaintiff's Motion for Reconsideration of the Court's Findings of Contempt (doc. no. 284) and Granting in Part and Denying in Part Defendant Varian Medical Systems' Motion for Contempt Sanctions (doc. no. 286) (doc. no. 293) remains in effect.

EXHIBIT K

Case 2:07-cv-00491-AJS Document 148 Filed 11/29/2007 Page 1 of 1 IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH | |
|------------------------------|------------------------------------|
| Plaintiff, | FILED ELECTRONICALLY |
| v. | |
| VARIAN MEDICAL SYSTEMS, INC. | Civil Action No. 2:07-cy-00491-AJS |
| Defendant. | Judge Arthur J. Schwab |
| | |

ORDER OF COURT PLAINTIFF'S
EMERGENCY MOTION TO IDENTIFY
ADDITIONAL EXTRINSIC EVIDENCE

AND NOW, to-wit, this 29 day of 40, 2007, upon consideration of Plaintiff

University of Pittsburgh's Emergency Motion to Identify Additional Extrinsic Evidence, it is

hereby ORDERED, ADJUDGED and DECREED that the foregoing Motion is GRANTED as

fellows:

Plaintiff University of Pittsburgh may add the deposition excerpts listed in its Emergency

Motion to Identify Additional Extrinsic Evidence for the Claim Construction hearing on November 29, 2007.

BY THE COURT:

The Honorable Arthur J. Schwab Unred States District Judge

I-PA/3677536.2

EXHIBIT L

Case 2:07-cv-00491-AJS Document 168 Filed 12/14/2007

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH

Plaintiff,

Liamin

٧.

Case 2:07-cv-00491-AJS

Page 1 of 1

VARIAN MEDICAL SYSTEMS, INC.,

Judge Arthur J. Schwab

Defendant.

Filed Electronically

ORDER DENYING PLAINTIFF'S MOTION TO JOIN CARNEGIE MELLON UNIVERSITY

AND NOW, this 24 day of 2007, after consideration of

Plaintiff's Motion Pursuant to Federal Rule of Civil Procedure 19 to Join Carnegie

Mellon University, it is hereby ORDERED that said Motion is DENIED.

BY THE COURT:

med deportants nesponse Mosta (doc. No. 162)

he Honorable Arthur J. Schwab

EXHIBIT M

COSS 6: 2007-73-10-74-74-75 UNDOED THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH

v,

Plaintiff,

Case 2:07-cv-00491-AJS

VARIAN MEDICAL SYSTEMS, INC.,

Judge Arthur J. Schwab

Defendant.

Filed Electronically

ORDER OF COURT GARNTING DOC. No. 183

AND NOW, to-wit, this 29 day of 2008, upon consideration of Defendant Varian Medical Systems, Inc.'s Motion To Compel Dr. Andre Kalend To Re-produce (dec. 40. 183)

Documents In An Intelligible Manner, it is hereby ORDERED, ADJUDGED and DECREED that the foregoing Motion is GRANTED as follows:

(1) Dr. Andre Kalend shall organize and re-produce his documents as they were kept by him in the ordinary course of business at the University of Pittsburgh or, if he kept them in a disorganized fashion at the University of Pittsburgh, then he shall produce them in a manner that will enable a reasonable person to understand their source and categorization, including grouping related pages and documents together and putting them in the proper order; and

(2) Andre Kalend will provide the re-organized original documents to Varian inspection.

Inspection. The second of the second of

BY THE COURT:

EXHIBIT N

UNIVERSITY OF PITTSBURGH

· v.

Plaintiff,

Case 2:07-cv-00491-AJS

VARIAN MEDICAL SYSTEMS, INC.,

Judge Arthur J. Schwab

Defendant.

Filed Electronically

ORDER OF COURT GRANTING IN PI

AND NOW, to-wit, this 29 day of January 2008, upon consideration of Varian Medical Systems, Inc.'s Motion To Compel Additional Deposition Time From Certain Witnesses, it is hereby ORDERED, ADJUDGED and DECREED that the foregoing Motion is GRANTED as follows:

- Dr. Andre Kalend Richard Westerhoff and Dr. Karun Shimoga should be available for questioning based on the late production of Kalend and UPitt documents.
- Dr. Joel Greenberger and Charalambos Athanassiou should be available for (2) questioning based on the Kalend production.
- Dr. Greenberger should be available to answer questions based on the complete copy of Pitt00008919 and reasonable follow-up questions.
- (4)UPitt's 30(b)(6) witnesses should be made available on at least topics 1-3, 5-8, 21-22, and 39, based on late production of the Kalend and UPitt documents.

2(5) Dr. Alexander Ducret, Dr. Marc Malandro, Dr. Shimoga, and Richard Westerhoff, should provide testimony for the questions they did not answer based on attorney instruction not

G. Counsel for Ploi-t-EF are OR DERGO WORK WITH DEFENSE BY THE COURT:

councel so the a boxe deposit

EXHIBIT O

Case 2:07-cv-00491-AJS Document 225 *SEALED* Filed 01/30/2008 Page 1 of 1 IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA UNIVERSITY OF PITTSBURGH FILED ELECTRONICALLY Plaintiff, V. Civil Action No. 2:07-cv-00491-AJS VARIAN MEDICAL SYSTEMS, INC. Judge Arthur J. Schwab Defendant. ORDER OF COURT DENYING DEFENDANT VARIAN MEDICAL SYSTEMS, INC.'S MOTION TO COMPEL PRODUCTION OF DOCUMENTS RESPONSIVE TO VARIAN'S SECOND REQUEST FOR PRODUCTION OF DOCUMENTS AND DOCUMENT SUBPOENAS ('192 MOTION) (Poc. No. AND NOW, to-wit, this 29 day of 2008, upon consideration of Plaintiff University of Pittsburgh's Opposition To Defendant Varian Medical Systems, Inc.'s Motion To (doc. No. 172) Compel Production Of Documents Responsive To Varian's Second Request For Production Of (Mad Rosponao Maista (doc. No. 208)) Documents And Document Subpoenas ('192 Motion), it is hereby ORDERED, ADJUDGED and DECREED that the foregoing Motion is DENIED, as an time by and Southing innoternat documentations derichting oneme tein

BY THE COURT:

United States District Judge

rable Arthur J. Schwab

EXHIBIT P

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH

Plaintiff,

v.

Case 2:07-cv-00491-AJS

VARIAN MEDICAL SYSTEMS, INC.,

Judge Arthur J. Schwab

Defendant.

Filed Electronically

SUPPLEMONTAL

AND NOW, to-wit, this /5 day of February, 2008, upon consideration of "Defendant Varian Medical Systems, Inc.'s (1) Motion to Compel Plaintiff University of (doc. ac. 228)

Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents" (Docket No. __), it is hereby ORDERED, ADJUDGED and because the County of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents" (Docket No. __), it is hereby ORDERED, ADJUDGED and because the County of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents" (Docket No. __), it is hereby ORDERED, ADJUDGED and because the County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents" (Docket No. __), it is hereby ORDERED, ADJUDGED and because the County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Center and Dr. Jeff Decrete County of Pittsburgh Medical Cent

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overruled, and Plaintiff shall serve complete responses to said interrogatories by no later than

to the production of said documents based on the attorney-client privilege, attorney work product are sustained. doctrine, and/or common interest privilege, and any other objections, are exercised

(3) Varian is hereby awarded reasonably its attorneys' fees and costs associated with Mr. Crocce 5 hall retrieve from the Court blobringing the foregoing Motion against mount of \$

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2/21/09, from some stopp personnel.

EXHIBIT Q

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| Civil Action No. 2:07-cv-00491-AJS |
| Judge Arthur J. Schwab |
|) |
| |

ORDER OF COURT DENYING DEFENDANT VARIAN MEDICAL SYSTEMS, INC.'S MOTION FOR LEAVE TO FILE AMENDED ANSWER AND COUNTERCLAIM (Oc. 236)

AND NOW, to-wit, this 15 day of 4,200, 2008, upon consideration of Defendant Varian Medical Systems, Inc.'s ("Varian") Motion For Leave To File Amended Answer And Counterclaim and of Plaintiff University of Pittsburgh's Opposition (dec. 248) thereto, it is hereby ORDERED, ADJUDGED and DECREED that the foregoing Motion is:

- 1) DENIED as to U.S. Patent No. 5,784,431 for failing to show good cause under Fed. R. Civ. P. 16(b) due to Varian's lack of diligence, and for failing to comply with the guidelines necessary to permit amendment under Fed. R. Civ. P. 15(a) since Varian unduly delayed seeking leave to amend its pleading, which would have been prejudicial to UPitt. Consequently, Varian may neither amend its pleading to assert the affirmative defense of inequitable conduct, nor may Varian add a counter claim alleging inequitable conduct.
- 2) DENIED as to U.S. Patent No. 5,727,554 for failing to show good cause under Fed. R. Civ. P. 16(b) due to Varian's lack of diligence, and for failing to comply

with the guidelines necessary to permit amendment under Fed. R. Civ. P. 15(a) since Varian and unduly delayed seeking leave to amend its pleading, which would have been prejudicial to UPitt. Consequently, Varian may neither amend its pleading to assert the affirmative defense of inequitable conduct, nor may Varian add a counter claim alleging inequitable conduct.

BY THE COURT

The Honorable Arthur J. Schwab United States District Judge

EXHIBIT R

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

Plaintiff,

07cv0491

ELECTRONICALLY FILED

v.

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

ORDER OF COURT DENYING PLAINTIFF'S MOTION FOR RECONSIDERATION OF THE COURT'S FINDINGS OF CONTEMPT (DOC. NO. 284) AND GRANTING IN PART AND DENYING IN PART DEFENDANT VARIAN MEDICAL SYSTEMS' MOTION FOR CONTEMPT SANCTIONS (DOC. NO. 286)

Pending before the Court is Plaintiff's Motion for Reconsideration of the Court's Findings of Contempt (doc. no. 284), with defendant's opposition thereto (doc. no. 290), and Defendant Varian Medical Systems' Motion for Contempt Sanctions (doc. no. 286), with plaintiff's opposition thereto (doc. no. 291). The Court denies the Motion for Reconsideration (doc. no. 284), and the Court grants in part and denies in part the Motion for Sanctions (doc. no. 286).

The case involves an intense patent dispute, with high-powered, out-of-town attorneys, countless pleadings despite being in the pre-claim construction stage of litigation (already approaching 300 docket entries), and continual discovery disputes, motions to quash, motions for sanctions, and "emergency" motions. Also, pending before the Court are objections to the Special Master's Report and Recommendation (doc. no. 254) (relating to plaintiff's failure to join the co-owner of the patents-in-suit at the commencement of the case as a co-plaintiff).

In light of the foregoing, the Court believed that the scheduling of a settlement conference

would be prudent. However, the Court further believed that to conduct a meaningful settlement conference, three (3) pieces needed to be in place: (1) each party needed to submit to the Court a confidential detailed settlement letter analyzing the strengths and weaknesses of the case; (2) each party needed to submit confidentially to the Court a proposed settlement agreement; and (3) importantly, the chief business decisionmaker¹ of each party was directed to attend the settlement conference, if there was to be any hope of moving beyond lawyer's gamesmanship and tactics, so the Court could talk to the chief business decisionmakers face-to-face.² No party, including plaintiff, filed any motion to be excused from any of these three (3) requirements, or a motion to clarify any of these three (3) requirements.

The Order of Court Setting Status/Settlement Conference (doc. no. 262) stated as follows:

IT IS HEREBY ORDERED that a Status / Settlement conference shall be held regarding the above-captioned matter on **March 28, 2008 at 8:00 AM** in Courtroom 7C, 7th Floor, United States Courthouse, 700 Grant Street, Pittsburgh, Pennsylvania.

Chief trial counsel and chief business decisionmakers shall attend in person and be prepared to discuss case schedule, settlement, and further alternative dispute resolution options in detail.

By NOON on March 26, 2008, each party should submit brief confidential letters to the Court detailing the relative strengths and weaknesses of their case, as well as settlement postures including monetary amounts. The letters will not be filed nor shared with opposing counsel. Accordingly, candor is expected.

FURTHERMORE, by NOON on March 26, 2008, each party shall

¹In contrast, at the initial case management conference, the "[c]hief trial counsel" was required to "attend in person," but the "client" only needed to "be available by telephone." Doc. no. 5.

²The court-mandated ADR Early Neutral Evaluation had concluded unsuccessfully in August 2007 (see doc. nos. 25 and 70).

submit a proposed settlement agreement to the Court. The proposed agreement will not be filed nor shared with opposing counsel.

Counsel should be familiar with this Court's Practices and Procedures (see Court Practices and Procedures at www.pawd.uscourts.gov, link "court practice".)

The words "chief business decisionmakers" are unambiguous and were intentionally chosen, so that the Court could talk face-to-face with the "business" decisionmakers - - moving beyond the lawyers who are personally engaged in this case on a day-to-day basis. The Court spent substantial time preparing for the settlement conference. Unfortunately, plaintiff (a) failed to submit a meaningful case analysis letter to the Court; (b) failed to submit any "proposed settlement agreement to the Court" prior to the conference; and (c) failed to have in attendance "in person" "the chief business decisionmaker" of plaintiff for this important case, at the settlement conference. While a party certainly can chose not to settle a case, a party cannot refuse to participate in court-ordered settlement conferences in a meaningful manner. See Federal Rules of Civil Procedure 16(c)(2)(I), (f)(1)(C) and Local Rule 16.

Counsel for plaintiff's argument -- that they either did not understand that "business" meant "business," or that showing up with only the same legal team (including outside and inside counsel) that appeared at the initial case management conference was all that the Order required (with the "business" person being available somewhere by telephone) -- is simply not credible. While the Court appreciated the genuine apology contained in trial counsel's declaration (doc. no. 285), filed on April 3, 2008, the subsequent filing by plaintiff at doc. no. 291, filed five (5) days later on April 8, 2008, returned to the prior, implausible argument that plaintiff "substantially complied with the Court's Order and took reasonable steps to comply with this Court's Order."

As a result of plaintiff's non-compliance, no meaningful settlement discussions occurred at the March 28, 2008 settlement conference, since there were no "chief business decisionmakers" of plaintiff in attendance with which the Court could engage in meaningful settlement discussions. Thus, the Court made certain findings and rulings at the settlement conference which were set forth in the Revised Hearing Memo (doc. no. 282) as follows:

| Counsel for Plaintiff | Daniel Johnson, Jr.; Lauren Hillock, In House Counsel, as "business representative" for plaintiff; Jerome Cochran, Vice Chancellor, the Chief Officer with full authority, not in attendance |
|------------------------|---|
| Counsel for Defendant | Henry Sneath; Shannon Clougherty; William Anthony; Keith Ascoff, Officer with full business authority |
| Court Reporter | Karen Earley |
| Law Clerk/Deputy Clerk | M. Lydon |
| Start time | 8:00 am |
| End time | 9:25 am |

NOTED:

Court notes plaintiff does not appear to have representative with full business authority present.

Ms. Hillock states that she has such full authority, and that Mr. Cochran, the chief business decisionmaker for plaintiff, is "on-call," although she did not know where he was physically located. Court notes that its order of 3/20/08 (doc. no. 262) states the "chief business decisionmakers" shall attend "in person."

Court directs business representatives to speak in person only with each other and report back at 9:00 am. after hearing from business representatives as to the progress of their discussion, Court finds that that Ms. Hillock is not the chief business decisionmaker for plaintiff. therefore, plaintiff did not comply with Court order of 3/20/08, stating that "Chief trial counsel and chief business decisionmakers shall attend in person" (doc. no. 262), nor did plaintiff file a motion to modify the Court order or be excused from its directives re the "in-person" attendance of chief business decisionmaker representative.

Court notes plaintiff also did not comply with portion of Court's Order of 3/20/08 directing it to "submit a proposed settlement agreement to the Court." The Court further finds that counsel for plaintiff was unable to articulate any plausible justification for failing to comply with the Court's order at (doc. no. 262), and did not file a motion to modify the Court order or be excused from the proposed settlement agreement requirement.

Plaintiff is in contempt of Court order, and defendant, which did comply with the Court's order in all respects, may file appropriate motion for sanctions.

Defendant may file sur-reply brief to pending motion today, 3/28/08, with. no objection from plaintiff.

While the Court found that plaintiff was in contempt of its Order (doc. no. 262), the Court did not find (and does not find) that any counsel of plaintiff was personally in contempt.

However, the Court continues to find that plaintiff failed to comply with said Order, and was not in compliance (and certainly not in substantial compliance - see doc. no. 291) with said Order. Plaintiff's tactic of shielding the chief business decisionmaker from the settlement conference certainly prevented the Court from having a meaningful discussion with said individual, and also kept defendant's chief business decisionmaker from having such discussions. Therefore, the Court finds no justifiable grounds to re-considering its findings of contempt as to plaintiff, and denies the Motion for Reconsideration (doc. no. 284).

Also before the Court is Defendant Varian Medical Systems' Motion for Contempt Sanctions (doc. no. 286), seeking fees and expenses of \$30,024.43, and plaintiff's opposition thereto (doc. no. 291). First, it was obvious to the Court, by its review of defendant's thoughtful submission to the Court before the settlement conference, by the attendance of the "right"

business person on behalf of defendants at the settlement conference, and by the demeanor of the defendant's participation at the settlement conference, that defendant came to the conference prepared to engage in serious (albeit possibly unsuccessful) settlement negotiations. The Court appreciates this level of cooperation and pre-conference preparation.

Second, while defendant's compliance with the Order required substantial attorney hours and travel expenses - - defendant believes the total was \$30,024.43, the Court finds that it is appropriate to award sanction in the lesser amount of \$5,000, since most of defendant's preparation for the settlement conference will likely be put to good use in the procedure suggested in the next paragraph. This sanction is payable by plaintiff to defendant within ten (10) days of the date of this Order, and is separate from the next paragraph.

Finally, since the purpose of the Order scheduling settlement conference, and the three (3) requirements set forth therein, was to create an opportunity for the parties, at the level of the chief business decisionmaker, to engage in meaningful settlement discussions, the Court orders that plaintiff may purge itself of the findings of contempt by engaging in 2 days (for at least 7 hours per day) of settlement discussions in Pittsburgh, Pennsylvania, within 60 days of this Order of Court, either before the previously selected neutral (see doc. no. 25) or any other person of plaintiff's sole choosing, with plaintiff's chief business decisionmaker (Mr. Cochran) in attendance, together with defendant's chief business decisionmaker (Mr. Ascoff).

Plaintiff shall pay the full fees and expenses of the neutral for these 2 days but each party shall pay their own respective fees and expenses. The dates for the mediation shall be set at the convenience of the neutral. At the conclusion of the settlement conference, the neutral shall file the standard ADR form. If plaintiff chooses not to purge itself of the finding of contempt, then

said finding remains of record. If plaintiff chooses to purge itself of the finding of contempt, plaintiff may file an appropriate motion after the 2 day meeting with the neutral with an affidavit of compliance by counsel.

SO ORDERED this 17th day of April, 2008.

s/ Arthur J. Schwab
Arthur J. Schwab
United States District Judge

cc: All Registered ECF Counsel and Parties

EXHIBIT S

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

Plaintiff,

07cv0491

ELECTRONICALLY FILED

v.

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

JUDGMENT

AND NOW, to-wit this 16th day of June, 2008, in accordance with this Court's "Order Adopting Special Master's Report and Recommendation (Doc. No. 254) in Part; and Granting Defendant's Motion for Summary Judgment for Lack of Standing (Doc. No. 127)" [Doc. No. 294], the Court hereby enters final judgment in this action. It is hereby ORDERED, ADJUDGED, and DECREED as follows: All of Plaintiff University of Pittsburgh's claims for relief set forth in its Complaint (Doc. No. 1) are DISMISSED WITH PREJUDICE.

JUDGMENT IS ENTERED.¹

s/ Arthur J. Schwab
Arthur J. Schwab
United States District Judge

cc: All Registered ECF Counsel and Parties

¹This Order also grants in part and denies in part Plaintiff's Motion Requesting Entry of Judgment (doc. no. 295). The relief requested at \P 1 of the proposed Judgment (doc. no. 295-3) is granted, and that requested at \P 2 is denied.

EXHIBIT T

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

Plaintiff, 07cv0491

ELECTRONICALLY FILED

v.

VARIAN MEDICAL SYSTEMS, INC.,

Defendant.

ORDER GRANTING DEFENDANT VARIAN MEDICAL SYSTEM, INC.'S MOTION TO DISMISS COUNTERCLAIMS WITHOUT PREJUDICE (DOC. NO. 296)

WHEREAS, the Court having considered the Motion of Defendant Varian Medical Systems, Inc. to Dismiss Counterclaims Without Prejudice under Rule 41(a)(2) of the Federal Rules of Civil Procedure (doc. no. 296), and response thereto (doc. no. 300), it is HEREBY ORDERED that the Motion is GRANTED, and Varian's counterclaims set forth in doc. no. 20 are hereby DISMISSED WITHOUT PREJUDICE.

SO ORDERED this 16th day of June, 2008.

s/ Arthur J. Schwab
Arthur J. Schwab
United States District Judge

cc: All Registered ECF Counsel and Parties

EXHIBIT U

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH, |) | |
|-------------------------------|-------------|--------------------------------|
| Plaintiff, |) | |
| v. |))) | Civil Action No. 2:07-CV-00491 |
| VARIAN MEDICAL SYSTEMS, INC., |) | Hon. Arthur J. Schwab |
| Defendant | , | |

REPORT AND RECOMMENDATION OF SPECIAL MASTER

Pending before the Special Master in this patent infringement action is the motion of defendant, Varian Medical Systems, Inc., (Varian), for summary judgment for lack of standing, or in the alternative, a motion for a preliminary hearing on the issue.

I. INTRODUCTION AND PROCEDURAL HISTORY

This patent infringement action involves the two patents-in-suit, e.g., U.S. Patent Nos. 5,727,554 (the 554 patent), and 5,784,431 (the 431 patent). Plaintiff, the University of Pittsburgh, (UPitt), filed a complaint on April 13, 2007, and Varian filed an answer and counterclaim on May 14, 2007. On June 4, 2007, the District Court entered a case management order requiring that, among other things, fact discovery shall be completed on or before October 5, 2007. Following the entry of that order, the parties engaged in intensive fact and expert discovery, as well as motion practice on various discovery-related issues. In addition, the parties submitted *Markman* briefs and a Joint Disputed Claim Terms Chart. A *Markman* hearing was held on November 29, 2007, wherein the parties presented evidence and argument pertaining to their positions.

Varian filed the instant motion for summary judgment on November 21, 2007, and Judge Arthur Schwab referred the motion to the Special Master. On December 5, 2007, UPitt filed a brief in opposition to the motion for judgment, along with a motion to join Carnegie Mellon University as a plaintiff, pursuant to Federal Rule of Civil Procedure 19. Varian filed papers in opposition to the motion and, on December 14, 2007, Judge Schwab denied UPitt's motion to join Carnegie Mellon University as a party. (Docket No. 168). Varian then filed a reply memorandum in support its motion for judgment for lack of standing, and we turn now to the contentions of the parties.

Since this civil action was filed, the parties have devoted substantial time and resources to this case. The docket contains over 250 entries. Varian seeks summary judgment with respect to UPitt's complaint with prejudice due to lack of standing because the alleged co-owner of the patents-in-suit, Carnegie Mellon University, (CMU), is an absent but critical party to this litigation. Varian claims that UPitt, if it wishes to pursue a claim for infringement, must file the claim along with its co-owner, CMU. UPitt rejoins that CMU has assigned all substantial rights to any enforcement action by UPitt, and therefore Varian's motion must be denied. After considering the submissions of the parties, we recommend that the District Court grant Varian's motion without prejudice to the University of Pittsburgh filing an amended complaint, in which CMU is added as a party plaintiff. In the alternative, we recommend that the District Court vacate its order dated December 14, 2007, denying UPitt's motion to join, and then deny the instant motion as moot.

II. <u>FACTS</u>

Both patents-in-suit name the same five inventors, Joel Greenberger, Andre Kalend, Takeo Kanade, Karun Shimoga, and Charalambos Athanassiou. The were ultimately developed through a joint collaboration (Joint Project) between UPitt and CMU. (Concise Statement, ¶ 3;

Responsive Statement, ¶ 3). Two of the inventors, Drs. Kanade and Shimoga, were employees of CMU during the relevant period of the Joint Project. The remaining two inventors, Drs. Greenberger and Kalend, were employed by UPitt during the relevant period. (Concise Statement, ¶ 9; Responsive Statement, ¶ 9).

On or about October 13, 1994, UPitt and CMU jointly adopted "Policy Guidelines — Intellectual Property Rights and Technology Transfer Procedures in Collaborative Projects of the University of Pittsburgh and Carnegie Mellon University," (1994 UPitt/CMU Joint IP Policy), which remained in effect until June 30, 1997. Subsequently, on June 18, 1997, UPitt and CMU jointly adopted "Policy Guidelines — Intellectual Property Rights and Technology Transfer Procedures in Collaborative Projects of the University of Pittsburgh and Carnegie Mellon University" (1997 UPitt/CMU Joint IP Policy), which remained in effect until June 30, 2000. The 1994 and 1997 UPitt/CMU Joint IP Policies (Joint IP Guidelines), which appear to be identical in all material respects, were continuously in effect during all relevant periods, namely, during the performance of the Joint Project, at the time of the filing of the patents-in-suit, and at the time of the issuance of the patents. (Concise Statement, ¶ 20; Responsive Statement, ¶ 20).

UPitt admits that the Joint IP Guidelines, together with an assignment, executed in 1996 by the inventors to UPitt, govern ownership of the patents-in-suit. (Responsive Statement, ¶ 20-22). One of the stated objectives of the Joint IP Guidelines was to "facilitate the subsequent commercialization of IP rights." (Motion, Exs. P and Q, Part A.3). The Joint IP Guidelines provide, in relevant part, as follows: "All IP developed jointly by CMU Participants and Pitt Participants during collaboration *shall be owned jointly* by Pitt and CMU and shall be administered in accordance with these Guidelines." (Concise Statement, ¶ 15, 18). The Joint IP Guidelines provide that the participants will determine the contributions by the participants to

determine allocation of expenses and proceeds between UPitt and CMU. (Motion, Exs. P and Q, Part E).

The Joint IP Guidelines also provide that:

[t]he "University Allocation" of expenses and proceeds will be proportionate to the sum of the Relative Contributions by the individual Participants from the two universities.

For example, if two Pitt Participants made at [sic] total of 60% and three CMU Participants 40% of the Relative Contribution toward the invention, then 60% of total distributions will go to Pitt and 40% to CMU, for each university's respective further allocation of proceeds.

Id. (emphasis in original). Furthermore, "[i]n order to clarify and record all details of the resulting allocation of proceeds, a specific Allocation Agreement will be developed the Allocation Agreement will define the percentage of Net Proceeds to be received by each of the two universities" Id. The Joint IP Guidelines further provide that UPitt and CMU "will share the Net Proceeds from the commercialization" of joint inventions "in proportion to" the Universities' Allocation Agreement. (Motion, Exs. P and Q, Part G). There is evidence that the parties discussed the allocation with respect to the patents at 60% CMU and 40% UPitt, although there is no evidence that these discussions were recorded or memorialized, as contemplated by the Joint IP Policies.

The Joint IP Policies also provide for the designation of one of the two universities' technology transfer offices, as the "Responsible TT Office," which office would facilitate commercialization of IP rights (in this case, the patents-in-suit). Relevant here, the Joint IP Policies provide:

2. The Designated TT Office will have the sole responsibility for the commercialization of the IP disclosures resulting from the [collaborative project]. The normal policies and practices used by the Designated TT Office will apply, including the decision process of whether or not the university wishes —

- (a) to pursue the commercialization of a particular Disclosure, and in what manner, or
- (b) to turn it back to the inventors.

The Designated TT Office will, however, include at least one faculty member of the other university in completing the evaluation process of each Disclosure.

The TT Office which emerges with the responsibility for the commercialization of a Disclosure will be called the "Responsible TT Office."

3. The Responsible TT Office will work closely with the Participants in planning and executing commercialization of that Disclosure. It will keep the Participants and the other TT Office well informed on its activities and plans, will be sensitive and responsive to any special circumstances (for examples [sic], special regulatory requirements) of the other university, and will consult with the other TT Office on such issues.

Id. at Part F. The parties agree that UPitt was designated as the institution responsible for commercializing the patents.

The parties' course of conduct also confirms that UPitt was the lead institution in commercializing the patents. However, the evidence also establishes that UPitt understood CMU's approval was required, as co-owner, to negotiate exclusive licenses and options. For example, when UPitt was negotiating a license with Varian in 2002, UPitt sought approval from CMU as to the licensing terms to be offered. In addition, on or about October 29, 1998, UPitt, CMU, and Elekta Oncology Systems, Inc., entered an agreement in which Pitt and CMU *jointly* granted Elekta an option to negotiate a royalty-bearing, exclusive license to the patents-in-suit.

In 1996, the inventors "assigned" their rights in the patents-in-suit to UPitt pursuant to a boilerplate "Assignment." Likewise, the patents-in-suit-identify UPitt as the "Assignee." (Motions, Exs. B and C, at p. 1). The assignment makes no mention of CMU or the Joint IP Guideline. There is testimony from UPitt's designee, Laura Hillock, that the purpose of the

assignment was to facilitate the patent process: "The inventions derived from a collaborative relationship, ownership was with—assignment was to the University of Pittsburgh, which is common to do that up-front for the ease of filing and other things in collaborative relationships." (Motion, Ex. R, p. 47). The parties dispute the legal import of the assignment, with UPitt contending that it had "substantial rights" in the patents-in-suit, and Varian rejoining that it is irrelevant to CMU's joint ownership of the patents.

III. SUMMARY JUDGMENT STANDARD

Summary judgment is appropriate "if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c); see also Israel Bio-Engineering Project v. Amgen, Inc., 475 F.3d 1256, 1263 (Fed. Cir. 2007). In deciding whether summary judgment is appropriate, the court must view the evidence in the light most favorable to the non-moving party, with doubts resolved in favor of the non-movant, in this case UPitt. Israel Bio-Engineering, 475 F.3d at 1263. Issues of standing may be resolved by way of summary judgment and, where there is no dispute as to the material facts, judgment is appropriate on the issue of standing. See, e.g., id.

IV. <u>LEGAL ANALYSIS</u>

A. Standing to Sue

The Patent Act of 1952 ("Act") provides that "[a] patentee shall have remedy by civil action for infringement of his patent." 35 U.S.C. § 281. In addition, the Act provides that:

patents shall have the attributes of personal property

[P]atents, or any interest therein, shall be assignable in law by an instrument in writing. The . . . patentee . . . may in like manner grant and convey an exclusive right under his . . . patents, to the whole or any unspecified part of the United States.

A certificate of acknowledgement under the hand and official seal of a person authorized to administer oaths within the United States . . . shall be prima facie evidence of the execution of an assignment, grant or conveyance of a patent[.]

35 U.S.C. § 261. Thus, under the Act, a "patentee' includes not only the patentee to whom the patent was issued but also the successors in title to the patentee." 35 U.S.C. § 100(d). See also Israel Bio-Engineering, 475 F.3d at 1264.

It is a well-settled that a co-owner of a patent must voluntarily join in any action or the case will be dismissed for lack of standing. *See, e.g., Israel Bio-Engineering*, 475 F.3d at 1264 ("[a]bsent the voluntary joinder of all co-owners of a patent, a co-owner acting alone will lack standing."),(citing *Prima Tek II, L.L.C. v. A-Roo Co.*, 222 F.3d 1372, 1377 (Fed. Cir. 2000)); *see also* 8 Donald S. Chisum, *Chisum on Patents* § 21.03[3][d] (LexisNexis 2005)("The traditional rule is that all of the co-owners of a patent must join in bringing a suit for infringement."),(citing cases at n.66). The purpose of the rule is to protect the interests of a defendant in avoiding multiple lawsuits concerning alleged infringement of the same patent. *See, e.g., Willingham v. Lawton*, 555 F.2d 1340, 1344 (6th Cir. 1977). As the Court of Appeals noted,

Defendants in an infringement suit initiated by a single joint owner could have a justifiable fear that should they prevail and the court determine that the patent in suit is either invalid or not infringed, the remaining joint owners might still relitigate these issues at a later date in another costly and vexatious proceeding. Even though the remaining joint owners might be bound under traditional rules of collateral estoppel or res judicata, and despite the fact that such a repetitive suit may be an appropriate case for the awarding of attorney fees to defendants[,] defendants still could be prejudiced.

Id. at 1345 (footnote 7 omitted). Thus, if CMU is a co-owner of the patents-in-suit, CMU must appear as a party in this infringement action.

UPitt argues that, although CMU is a co-owner of the patent, CMU transferred all substantial rights to UPitt pursuant to the Joint IP Guidelines, and therefore UPitt has the right to

bring this action without CMU as a party, citing *Ortho Pharm. Corp. v. Genetics Inst. Inc.*, 52 F.3d 1026, 1030 (Fed. Cir. 1995); *Prima Tek II, LLC v. A-Roo Co.*, 222 F.3d 1372, 1378 (Fed. Cir. 2000); and *Vaupel Textilmaschinen KG v. Meccanica Euro Italia S.P.A.*, 944 F.2d 870, 875 (Fed. Cir. 1991)). In other words, UPitt as a co-owner and UPitt as the "transferee" of the co-owner, in these two capacities, has standing to sue. We disagree. The record establishes that CMU did not transfer all substantial rights in the patents to UPitt to satisfy the test of standing, and Varian's motion for summary judgment must be granted.

B. Transfer of Substantial Rights

There is an exception to the standing rule requiring the owner of a patent to be joined in the action. "The exception is that, where the patentee makes an assignment of all substantial rights under the patent, the assignee may be deemed the effective 'patentee' under 35 U.S.C. § 281 and thus may have standing to maintain an infringement suit in its own name." *Prima Tek*, 222 F.3d at 1377 (citing *Vaupel*, 944 F.2d at 875; *Ortho Pharm.*, 52 F.3d at 1030). "To determine whether a[n] . . . agreement has conveyed all substantial rights in a patent, and is thus tantamount to an assignment, we must ascertain the intention of the parties and examine the substance of what was granted." *Id.* at 1378 (citing *Vaupel*, 944 F.2d at 874-75). "In so doing, it is helpful to look at what rights were retained by the grantor." *Id.* Courts "pay particular attention to whether the agreement conveys *in full* the right to exclude others from making, using, and selling the patented invention in the exclusive territory." *Id.* at 1379.

Pursuant to the Joint IP Guidelines, UPitt was designated as the party with the responsibility of commercializing the patents, which is consistent with the stated objective of the Joint IP Guidelines "to facilitate the subsequent commercialization of IP rights." However, the Joint IP Guidelines are devoid of any assignment of CMU's *rights* in the patents. This is a distinction with a difference. A contractual responsibility is a duty which a party assumes

pursuant to the contract, which is generally not assignable, whereas a contractual *right* is an interest or benefit which is generally assignable. *See, e.g., Saxe v. Feinstein,* 77 A.2d 419, 421 (Pa. 1951); *Ptashkin ex rel. Fliegelman v. Department of Public Welfare,* 731 A.2d 238, 245 n.9 (Pa. Commw. Ct. 1999). Here, the Joint IP Guidelines, as well as other evidence of record, establishes that UPitt assumed a responsibility, but the evidence does not establish that Carnegie Mellon University assigned or transferred all of its substantial rights to the patents.

"In the absence of a special agreement, each of the co-owners of a patent may make, use or sell the patented invention . . . without the consent of and without accounting to the other owners." 35 U.S.C. § 262; see also Schering Corp. v. Roussel-UCLAF SA, 104 F.3d 341, 344 (Fed. Cir. 1997)("[e]ach co-owner's ownership rights carry with them the right to license others, a right that also does not require the consent of any other co-owner."); Willingham, 555 F.2d at 1344. Indeed, "unless the co-owner has given up these rights through an 'agreement to the contrary,' 35 U.S.C. § 262, the co-owner may not be prohibited from exploiting its rights in the patent[.]" Schering, 104 F.3d at 344. Although the Joint IP Guidelines contemplated that the proceeds would be shared with UPitt, there is no evidence that, pursuant to the Joint IP Guidelines or otherwise, CMU gave up its rights to license the patents.

The record establishes that CMU retained the right to license the patents, and that UPitt did not receive an assignment of the right to exclude others from making, using, and selling the patented invention. *Cf. Prima Tek*, 222 F.3d at 1379-80 (Prima Tek did not obtain substantial rights in the patents because it "had no right to exclude others from practicing the patents"); *Schering*, 104 F.3d at 344-47 (co-owner did not relinquish right to license pursuant to an agreement with its co-owner). In addition, there is no evidence in the Joint IP Guidelines, or elsewhere, that CMU relinquished its right to sue for infringement, or the right to use the

patented inventions, both of which are substantial rights. See, e.g., Abbott Labs. v. Diamedix Corp., 47 F.3d 1128, 1132-33 (Fed. Cir. 1995)(licensee lacked standing where patent owner retained limited right to make, use, and sell products); Vaupel, 944 F.2d at 875 (transfer of a right to sue for infringement was "particularly dispositive" of whether plaintiff had substantial rights in the patent so as to confer standing).

Although the *inventors* entered into an assignment with UPitt, *CMU* was not a party to the assignment, and for this reason, CMU's rights were unaffected. In any event, there is evidence that the assignment was done for ease of filing. While the assignment may be indicative that UPitt was the institution responsible for commercializing the patent, the assignment is not evidence that CMU transferred all of its substantial rights to UPitt.

In sum, we find that CMU is a co-owner of the patents and retained substantial rights in the patents-in-suit. CMU is a necessary party to this action. We recommend that the District Court grant the motion for summary judgment without prejudice.

C. Additional Recommendations for Proceeding

Although we recommend that the motion for summary judgment be granted, we recommend that it be granted without prejudice to UPitt to file an amended complaint, within thirty days, in which CMU is added as a party plaintiff, which would correct the standing deficiency. The interests of justice and judicial economy weigh in favor of permitting an an amendment to the complaint given the substantial time and resources that the parties have devoted to this case, the apparent willingness of CMU to join in the action, and the fact that CMU is subject to the jurisdiction of the Court. In the alternative, we recommend that the District Court vacate its order dated December 14, 2007, denying UPitt's motion to join.

V. <u>CONCLUSION</u>

We recommend that the motion of Varian Medical System's Inc. for summary judgment be granted without prejudice to UPitt filing an amended complaint in which CMU is added as a party plaintiff. In the alternative, we recommend that the District Court vacate the order dated December 14, 2007.

March **8**, 2008

Donald E. Ziegler

Special Master

EXHIBIT V

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) ELECTRONICALLY FILED |
|------------------------------|--------------------------------------|
| Plaintiff, |) |
| v. |) Civil Action No. 2:07-CV-00491-AJS |
| VARIAN MEDICAL SYSTEMS, INC. | Judge Arthur J. Schwab |
| Defendant. |) |

PLAINTIFF'S MOTION REQUESTING ENTRY OF JUDGMENT

TO THE HONORABLE UNITED STATES DISTRICT JUDGE SCHWAB:

University of Pittsburgh ("UPitt") respectfully moves under Rule 58(d) to request entry of judgment to be set out in a separate document in accordance with Rule 58(a). Rule 58(a) states as follows.

Every judgment and amended judgment must be set out in a separate document, but a separate document is not required for an order disposing of a motion: (1) for judgment under Rule 50(b); (2) to amend or make additional findings under Rule 52(b); (3) for attorney's fees under Rule 54; (4) for a new trial, or to alter or amend the judgment, under Rule 59; or (5) for relief under Rule 60.

For an order to be considered a separate document for purposes of Rule 58, it must satisfy three requirements: (1) it must be self-contained and separate from the opinion, (2) it must note the relief granted, and (3) it must omit (or at least substantially omit) the trial court's reasons for disposing of the claims. See United Auto. Workers Local 259 Social Sec. Dept. v. Metro Auto Center, 501 F.3d 283, 287 (3d Cir. 2007) (quoting In re Cendant Corp. Securities Litigation, 454 F.3d 235, 241 (3d Cir. 2006)).

On April 30, 2008, the Court issued its Order Adopting Special Master's Report and Recommendation (Doc. No. 254) in Part; and Granting Defendant's Motion for

Summary Judgment for Lack of Standing (Doc. No. 127) ("Order"). The Order is six pages long and sets forth the factual background and legal analysis of the Court and in conclusion stated as follows.

Therefore, the Court will adopt in part the Report and Recommendation of the Special Master (doc. no. 254); the Court will sustain the objections contained in Defendant/Counterclaimant Varian Medical System Inc.'s Objections to Report and Recommendation of Special Master Re: Motion for Summary Judgment for Lack of Standing (doc. no. 256) relating to vacating the December 5, 2007 Order (see doc. nos. 255, 271, 272, 281); and the Court grants the Motion for Summary Judgment for Lack of Standing (doc. no. 127) and dismisses this action with prejudice.

Here, the Order is not self-contained and separate from the opinion nor does it substantially omit the Court's reasons for disposing of the claims. Therefore, UPitt does not believe the Order constitutes a separate document because it does not meet at least the first and third requirements set out by the Third Circuit for complying with Rule 58(a). See, e.g., Picquin-George v. Warden, FCI-Schuylkill, No. 06-2850, 2006 WL 2917552, at *1 n.1 (3d Cir. 2006) (holding that the District Court did not comply with the separate-document rule because its order language was placed at the end of a seven-page document substantially devoted to recitation of procedural history and legal analysis); Bartelli v. Nagy, No. 06-1311, 2007 WL 1115830, at *1 (3d Cir. 2007) (finding that an order adopting a magistrate judge's recommendation granting summary judgment was not a separate document under Rule 58 because the order presented the facts and procedural history in the order).

Additionally, in its Order, the Court stated it "dismisses this action with prejudice." (emphasis added). UPitt understands this Court's Order to mean that the entire action is dismissed with prejudice and, thus, the entire case is dismissed including all of UPitt's claims and all of Varian Medical Systems, Inc.'s ("Varian's") counterclaims. However, on May 6,

¹ On May 12, 2008, UPitt's counsel spoke with the Court Clerk who explained that the Court's intention was to dispose of the entire case, dismissing all claims and counterclaims with

2008, Varian's counsel sent a letter to UPitt's counsel asking UPitt to stipulate to a dismissal without prejudice of Varian's counterclaims. UPitt's counsel responded on May 14, 2008 explaining that it could not agree with Varian's proposed stipulation to dismiss Varian's counterclaims without prejudice because UPitt's understanding is that the Court intended to dismiss the *entire action with prejudice*. Furthermore, it is illogical for Varian to request that its counterclaims be dismissed without prejudice but UPitt's claims be dismissed with prejudice. If the Court found, as it did, that Carnegie Mellon University ("CMU") is a necessary party to this action and it is too late for UPitt to amend its Complaint, the same reasoning applies to Varian's counterclaims for declaratory relief that the patents-in-suit are invalid and are not infringed by Varian. Varian's counterclaims are only asserted against UPitt and not CMU and for the same reasons stated in the Order, it would be too late for Varian to amend its Answer to add CMU to add CMU as a party. See H.R. Technologies, Inc. v. Astechnologies, Inc., 275 F.3d 1378, 1386 (Fed. Cir. 2002) (affirming the district court's decision dismissing plaintiff's claim of infringement and defendant's counterclaim of non-infringement for lack of standing and noting the dismissal of defendant's counterclaim of non-infringement was correct because the counterclaim is asserted against the wrong party due to the standing defect in the underlying claim). Accordingly, although UPitt would have liked to file a joint motion with Varian requesting entry of final judgment, the parties are at a disagreement as to what the final judgment is, so UPitt has filed the present motion.²

Regarding the disposition of this action, the dismissal for lack of standing is not on the

prejudice, but that a final judgment had not yet been entered. The Court Clerk recommended filing a motion for entry of judgment to make sure that all claims and counterclaims were dismissed. The Court Clerk also recommended that the parties file a joint motion if possible.

² However, the parties are not required to file a joint motion. Rule 58(d) states that "[a] party may request that judgment be set out in a separate document as required by Rule 58(a)" (emphasis added).

merits of the case. See Fed. R. Civ. P. 41(b); Korvettes, Inc. v. Brous, 617 F.2d 1021, 1024 (3d Cir. 1980) ("A dismissal for lack of jurisdiction is plainly not a determination of the merits of a claim.") Additionally, UPitt respectfully disagrees with the Court's dismissing the action with prejudice. Rather, the dismissal should be without prejudice. See Korvettes, 617 F.2d at 1024 ("Ordinarily, such a dismissal is 'without prejudice.""); see, also, H.R. Techs., Inc., 275 F.3d at 1385. Thus, for the Court's convenience, UPitt respectfully submits two proposed Judgments to the present motion: Exhibit A dismissing the action without prejudice and Exhibit B dismissing the action with prejudice.

DATED: May 15, 2008 Respectfully submitted,

/s/ Rita E. Tautkus

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Attorneys for Plaintiff University of Pittsburgh

EXHIBIT A

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) |
|--|---|
| Plaintiff, | FILED ELECTRONICALLY |
| v. VARIAN MEDICAL SYSTEMS, INC. Defendant. | Civil Action No. 2:07-cv-00491-AJS Judge Arthur J. Schwab) |
| [PROPOS | ED] JUDGMENT |
| AND NOW, to-wit, this day of | f, 2008, in accordance with this |
| Court's "Order Adopting Special Master's Re | eport and Recommendation (Doc. No. 254) in Part; |
| and Granting Defendant's Motion for Summa | ary Judgment for Lack of Standing (Doc. No. 127)" |
| [Doc. No. 294], the Court hereby enters final | judgment in this action. |
| It is hereby ORDERED, ADJUDGED | and DECREED that: |
| 1. All of Plaintiff University of Pittsh | burgh's claims for relief set forth in its Complaint |
| (Document No. 1) are DISMISSED WITHO | UT PREJUDICE. |
| 2. All of Defendant and Counter-Plai | intiff Varian Medical Systems Inc.'s claims for |
| relief set forth in its Answer and Counterclain | ms (Document No. 20) are DISMISSED WITHOUT |
| PREJUDICE. | |
| JUDGMENT IS ENTERED. | |
| | BY THE COURT: |
| | |
| | The Honorable Arthur J. Schwab United States District Judge |

EXHIBIT B

Page 9 of 20

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) |
|---|---|
| Plaintiff, | FILED ELECTRONICALLY |
| v. VARIAN MEDICAL SYSTEMS, INC. Defendant. | Civil Action No. 2:07-cv-00491-AJS Judge Arthur J. Schwab |
| [PROPOS | SED] JUDGMENT |
| AND NOW, to-wit, this day of | of, 2008, in accordance with this |
| Court's "Order Adopting Special Master's F | Report and Recommendation (Doc. No. 254) in Part |
| and Granting Defendant's Motion for Summ | nary Judgment for Lack of Standing (Doc. No. 127) |
| [Doc. No. 294], the Court hereby enters fina | al judgment in this action. |
| It is hereby ORDERED, ADJUDGE | D and DECREED that: |
| 1. All of Plaintiff University of Pitts | sburgh's claims for relief set forth in its Complaint |
| (Document No. 1) are DISMISSED WITH I | PREJUDICE. |
| 2. All of Defendant and Counter-Pla | aintiff Varian Medical Systems Inc.'s claims for |
| relief set forth in its Answer and Countercla | ims (Document No. 20) are DISMISSED WITH |
| PREJUDICE. | |
| JUDGMENT IS ENTERED. | |
| | BY THE COURT: |
| | The Honorable Arthur J. Schwab United States District Judge |

EXHIBIT W

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

| UNIVERSITY OF PITTSBURGH |) ELECTRONICALLY FILED |
|------------------------------|--------------------------------------|
| Plaintiff, |)) |
| | NOTICE OF APPEAL |
| v. |) Civil Action No. 2:07-CV-00491-AJS |
| VARIAN MEDICAL SYSTEMS, INC. |) Judge Arthur J. Schwab |
| Defendant. |) |

Notice is hereby given that Plaintiff University of Pittsburgh in the above named case hereby appeals to the United States Court of Appeals for the Federal Circuit from the final judgment entered in this action on 16th day of June, 2008.

DATED: June 16, 2008 Respectfully submitted,

/s/ Rita E. Tautkus

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Attorneys for Plaintiff University of Pittsburgh

1-PA/3706495.1 2

EXHIBIT X

Case 2:07-cv-00491-AJS

Document 68

Filed 09/05/2007

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IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH,

٧.

Case 2:07-cv-00491-AJS

Plaintiff,

Judge Arthur J. Schwab

VARIAN MEDICAL SYSTEMS, INC.,

Filed Electronically

Defendant.

VARIAN MEDICAL SYSTEMS, INC.'S MOTION FOR LEAVE TO TAKE MORE THAN TEN (10) FACT DEPOSITIONS

TO THE HONORABLE UNITED STATES DISTRICT JUDGE:

Defendant and Counterclaim Plaintiff, VARIAN MEDICAL SYSTEMS, INC. ("Varian"), by and through its counsel, PICADIO SNEATH MILLER & NORTON, P.C. and Henry M. Sneath, Esquire, and Shannon M. Clougherty, Esquire, files this Motion for Leave to Take More than Ten (10) Fact Depositions and for such respectfully shows the Court as follows:

- 1. This is a patent infringement action, wherein Plaintiff, the University of Pittsburgh ("Pitt"), has alleged that Varian has infringed U.S. Patent Nos. 5,727,554 (the "'554 patent") and 5,784,431 (the "'431 patent") (collectively referred to as "the patents-in-suit"). Pursuant to the Case Management Order signed by Judge Schwab on June 4, 2007, fact discovery shall be completed by October 5, 2007.
- 2. The patents-in-suit generally relate to the treatment of cancerous tumors with radiation.

- 3. Varian's answer denied infringement, alleged that the patents-in-suit are invalid, and asserted various affirmative defenses.
- 4. There are five (5) inventors of the patents-in-suit: Dr. Joel Greenberger, Dr. Takeo Kanade, Dr. Andre Kalend, Mr. Charalambos Athanassiou and Dr. Karun Shimoga.
- 5. Varian will need to depose each of the five (5) inventors of the patents-in-suit in order to learn more about the nature of the inventions, their conception and reduction to practice, the state of the art at the time the patent applications were filed, the inventors' collaboration with each other and with third parties, and other relevant topics. Pitt identified each of the inventors in its Rule 26(a)(1) disclosures as persons likely to possess relevant knowledge on which Pitt may rely in this case. Varian's counsel sought to discuss the case informally with the four inventors who are not currently employed by Pitt, but they refused to cooperate.
- 6. After Varian deposes the five (5) inventors, it will only be able to depose an additional five (5) fact witnesses due to the limitation on the number of depositions set forth in Federal Rule of Civil Procedure 30(a)(2). This is an inadequate number given the subject matter and the facts of this case.
 - 7. Under Federal Rule of Civil Procedure 30(a)(2):

A party must obtain leave of court, which shall be granted to the extent consistent with the principles stated in Rule 26(b)(2), if, ... without the written stipulation of the parties,

- (A) a proposed deposition would result in more than ten depositions being taken under this rule or Rule 31...by the defendants, [...]
- 8. Federal Rule of Civil Procedure 26(b)(2) states that "[b]y order, the court may alter the limits in these rules on the number of depositions"

- 9. In addition to the five (5) named inventors, Varian also intends to depose Richard V. Westerhoff, Esquire, who is the attorney who prosecuted the patents-in-suit. It is standard practice in a patent case for the defendant to depose the patent prosecutor in connection with the defendant's invalidity defenses and to investigate the possibility of inequitable conduct. Such a deposition is necessary here.
- Federal Rule of Civil Procedure 30(b)(6): Pitt; Carnegie Mellon University ("CMU"); University of Pittsburgh Medical Center ("UPMC"); and Elekta Oncology Systems ("Elekta"). Each of these entities has produced documents in this case in response to requests for inspection or a subpoena duces tecum. In reviewing the documents they produced, it is apparent that each of the foregoing has relevant information concerning the patents-in-suit, Pitt's claims, and/or Varian's defenses that cannot be obtained other than by way of deposition. Depositions are needed to explore the following issues, among others:
 - Pitt, as the plaintiff in this case, needs to be deposed on such issues as its ownership of the patents-in-suit, its licensing practices, its delay in filing suit against Varian, and its document production.
 - Carnegie Mellon was the employer of two of the inventors at the time the
 patented inventions were developed. It has a joint research agreement with
 Pitt, and it was involved with Pitt in apparent attempts to commercialize the
 inventions after the patents were issued.
 - UPMC was part of the same legal entity as Pitt when the patented inventions
 were developed, and it remains a close affiliate of Pitt. One of the inventors
 is jointly employed by Pitt and UPMC. UPMC has been involved in

discussions related to the licensing of the patents-in-suit. Also, UPMC is a major purchaser of Varian equipment, including the accused products, and it appears that Pitt's litigation counsel has recently sought access to UPMC's Varian equipment for the possible purpose of testing or examining the accused products. Pitt's Rule 26(a)(1) disclosures list at least one current UPMC employee as a person likely to possess relevant knowledge on which Pitt may rely in this action.

- Elekta is a Varian competitor. After the patents-in-suit issued, Elekta entered into an agreement with Pitt and CMU related to the further development and commercialization of the technologies embodied in the patents-in-suit. However, Elekta terminated that agreement several years later, claiming that Pitt and CMU failed to fulfill their promises with respect to product development. Testimony from Elekta may be relevant to such issues as the proper amount of a reasonable royalty should Pitt prevail on its infringement claims, and whether the patents-in-suit meet the "enablement" requirement of 35 U.S.C. § 112.
- 11. Other witnesses whom Varian will also need to depose include Alan Ducruet, the Technology Licensing Manager, Life Sciences at Pitt; Reed McManigle, the Manager of Business Development and Licenses, Carnegie Mellon University, Center for Technology Transfer; and Francis Connell, a former Pitt employee. Each is identified in Pitt's initial disclosures as possessing relevant information on which Pitt may rely in this case, and each was directly involved in licensing negotiations with Varian prior to the filing of this lawsuit. Their

testimony is likely to be relevant to such issues as the calculation of a reasonable royalty and Varian's laches defense.

- Finally, Varian expects to need several depositions of other third party witnesses 12. on such issues as prior art (such as to obtain explanations of the prior art or to establish dates of publication) and/or the inventors' actual or proposed collaboration with third parties regarding development of the patented inventions.
- The depositions which Varian seeks to take are to get the most basic type of 13. information needed in any patent case. All of the proposed deponents were either directly involved in the development, prosecution, and licensing of the patents-in-suit and the related inventions or have relevant information regarding key pieces of prior art.
- 14. The additional depositions which Varian seeks to take will not be duplicative of other discovery, as each deponent has particular knowledge which is not available through other sources. Furthermore, this Motion, if granted, will not pose an undue burden to Pitt. Most of them will take place here in Pittsburgh, and they are reasonable in number given the nature and complexity of the claims and defenses in this case.
- 15. Varian will be extremely prejudiced in its defense of this lawsuit if it is unable to take more than ten (10) fact witness depositions, as it will be deprived of evidence that is directly relevant to its defenses. Varian waited to file this motion until all parties' document productions were substantially complete so that it could make an informed decision about which depositions were truly necessary. The above discussion is the result of that informed evaluation.
- 16. Although Varian asked Plaintiff to stipulate to the allowance of the additional depositions, Plaintiff refused to agree to any such stipulation.

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Filed 09/05/2007

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For the reasons set forth above, Defendant VARIAN MEDICAL SYSTEMS, INC. respectfully requests that this Motion be granted and that an Order of Court be entered by this Honorable Court granting Varian leave to conduct more than ten (10), but no more than seventeen (17) fact depositions. A Proposed Order of Court accompanies this Motion.

Respectfully submitted,

/s/ Henry M. Sneath

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September 5, 2007

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Filed 09/05/2007

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the VARIAN MEDICAL SYSTEMS, INC. MOTION FOR LEAVE TO TAKE MORE THAN TEN (10) FACT DEPOSITIONS has been served upon all parties either individually or through counsel via:

| | Hand-Delivery |
|----------|---|
| | Facsimile |
| X | First Class, US Mail, Postage Prepaid |
| | Certified Mail-Return Receipt Requested |
| | ECF Electronic Service |
| <u>X</u> | Email |
| | |

at the following addresses:

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Dated: September 5, 2007

/s/ Henry M. Sneath

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Filed 09/05/2007

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IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH

Case 2:07-cv-00491-AJS

Plaintiff,

٧.

Judge Arthur J. Schwab

VARIAN MEDICAL SYSTEMS, INC.,

Filed Electronically

Defendant.

DISCOVERY DISPUTE CERTIFICATE PURSUANT TO L.R. 37.1

The parties, by and through their respective counsel, have discussed the matters set forth in the Motion for Leave to Conduct More than Ten Fact Depositions, and Plaintiff and Defendant have been unable to reach an agreement.

Respectfully submitted,

September 5, 2007

/s/ Henry M. Sneath

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Document 68-3

Filed 09/05/2007

Page 1 of 1

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF PENNSYLVANIA

UNIVERSITY OF PITTSBURGH

٧.

Case 2:07-cv-00491-AJS

Plaintiff,

Judge Arthur J. Schwab

VARIAN MEDICAL SYSTEMS, INC.,

Filed Electronically

Defendant.

PROPOSED ORDER OF COURT

WHEREAS, the Court having considered Defendant and Counterclaim Plaintiff VARIAN MEDICAL SYSTEMS, INC.'s Motion for Leave to Take More than Ten (10) Fact Depositions, it is HEREBY ORDERED that the Motion is GRANTED and that VARIAN MEDICAL SYSTEMS, INC. is permitted leave to take more than ten (10), but no more than seventeen (17) fact depositions in this case.

| SO ORDERED THIS _ | day of | , 2007. | |
|-------------------|-----------|---------------------|--|
| | BY THE | COURT: | |
| | | | |
| | Arthur J. | Schwah | |
| | | ates District Judge | |

EXHIBIT Y

Document 19-24 Filed 06/27/2008

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APPEAL, CLOSED, PAT/TRADE, SM, STAYED

U.S. District Court Western District of Pennsylvania (Pittsburgh) CIVIL DOCKET FOR CASE #: 2:07-cv-00491-A.IS

UNIVERSITY OF PITTSBURGH v. VARIAN MEDICAL

SYSTEMS, INC.

Assigned to: Arthur J. Schwab

Cause: 35:271 Patent Infringement

Date Filed: 04/13/2007

Date Terminated: 04/30/2008

Jury Demand: Both

Nature of Suit: 830 Patent Jurisdiction: Federal Question

Special Master

JUDGE DONALD E. ZIEGLER

represented by Donald E. Ziegler

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LEAD ATTORNEY

ATTORNEY TO BE NOTICED

Plaintiff

UNIVERSITY OF PITTSBURGH

represented by Allison K. Young

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Christopher K. Ramsey

Document 19-24

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Rita E. Tautkus

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Richard J. Johnson

1201 Pennsylvania Ave., NW Washington, DC 20004 202-662-5323 Email: rjohnson@cov.com ATTORNEY TO BE NOTICED

Roderick R. McKelvie

Covington & Burling LLP 1201 Pennsylvania Avenue NW Washington, DC 20004 202-662-5195 Fax: 202-778-5195

Email: rmckelvie@cov.com

ATTORNEY TO BE NOTICED

V.

Defendant

VARIAN MEDICAL SYSTEMS, INC.

represented by Eileen O'Connor

Orrick Herrington & Sutcliffe LLP 666 Fifth Avenue New York, NY 10103-0001 (212) 506-5000 Email: eoconnor@orrick.com LEAD ATTORNEY

Henry M. Sneath

Picadio, Sneath, Miller & Norton 4710 U.S. Steel Tower 600 Grant Street Pittsburgh, PA 15219-2702 (412) 288-4000 Email: hsneath@psmn.com LEAD ATTORNEY ATTORNEY TO BE NOTICED

M. Brendan Smith

Orrick, Herrington & Sutcliffe 666 Fifth Avneue New York, NY 10103 Case 3:08-cv-02973-MMC

Document 19-24

Filed 06/27/2008

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(212) 506-5298 Email: mbsmith@orrick.com LEAD ATTORNEY ATTORNEY TO BE NOTICED

Matthew H. Poppe

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Michael F. Heafey

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Veronica Mullally

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William L. Anthony, Jr.

Orrick, Herrington & Sutcliffe 1020 Marsh Road Menlo Park, CA 94025 (650) 614-7400 Email: wanthony@orrick.com LEAD ATTORNEY ATTORNEY TO BE NOTICED CM/ECF - PA Western Page 5 of 46

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Zheng Liu

Orrick Herrington & Sutcliffe LLP 1000 Marsh Road Menlo Park, CA 94025-1015 (650) 614-7699 Email: jenliu@orrick.com LEAD ATTORNEY

ATTORNEY TO BE NOTICED

Counter Claimant

VARIAN MEDICAL SYSTEMS, INC.

represented by Henry M. Sneath

(See above for address)

LEAD ATTORNEY

ATTORNEY TO BE NOTICED

M. Brendan Smith

(See above for address)

LEAD ATTORNEY

ATTORNEY TO BE NOTICED

Shannon M. Clougherty

(See above for address)

LEAD ATTORNEY

ATTORNEY TO BE NOTICED

V.

Counter Defendant

UNIVERSITY OF PITTSBURGH

represented by Daniel Johnson, Jr.

(See above for address)

LEAD ATTORNEY

ATTORNEY TO BE NOTICED

Elizabeth Stroyd Windsor

(See above for address)

LEAD ATTORNEY

ATTORNEY TO BE NOTICED

Richard J. Johnson

(See above for address)

ATTORNEY TO BE NOTICED

Roderick R. McKelvie

(See above for address)

PRO HAC VICE

ATTORNEY TO BE NOTICED

| Date Filed | # | Docket Text |
|------------|---|-------------|
| | | |

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| 04/13/2007 | 1 | COMPLAINT against VARIAN MEDICAL SYSTEMS, INC. (Filing fee \$ 350 receipt number 3692), filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Civil Cover Sheet # 2 Exhibit A# 3 Exhibit B# 4 Receipt Filing Fee)(plh) (Entered: 04/13/2007) |
|------------|----------|--|
| 04/13/2007 | | E-mail notification to the U.S. Patent and Trademark Office with complaint attached was sent on 4/13/2007. (plh) (Entered: 04/13/2007) |
| 04/13/2007 | 2 | MOTION for attorney Allison K. Young to Appear Pro Hac Vice <i>Motion and Affidavit for Admission Pro Hac Vice of Allison K. Young</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit Ex. A (Allison Young Certificate of Good Standing for USDC NDCA)# 2 Exhibit Ex. B [Proposed] Order for Pro Hac Vice Admission (for Allison K. Young))(Young, Allison) (Entered: 04/13/2007) |
| 04/16/2007 | 3 | NOTICE that instant civil action has been designated for placement into the United States District Court's Alternative Dispute Resolution program. Parties are directed to fully complete the required 26(f) report, which includes the stipulation of selecting an ADR process. Counsel for plaintiff (or in the case of a removal action, counsel for removing defendant) shall make service of the notice on all parties.(ms) (Entered: 04/16/2007) |
| 04/16/2007 | 4 | Pro Hac Vice Fees received in the amount \$ 40.00 receipt # 3722 re 2 Motion to Appear Pro Hac Vice for Allison K. Young (klm). (Entered: 04/16/2007) |
| 04/17/2007 | <u>5</u> | ORDER SETTING INITIAL CASE MANAGEMENT CONFERENCE for May 16, 2007 at Noon. Signed by Judge Arthur J. Schwab on 4/17/07. (ms) (Entered: 04/17/2007) |
| 04/17/2007 | | ORDER Counsel for plaintiffs is hereby directed to immediately serve the Order Setting Initial Case Management Conference together with the Complaint upon defendant or counsel for defendant. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 4/17/07. (ms) (Entered: 04/17/2007) |
| 04/17/2007 | <u>6</u> | Disclosure Statement identifying None as Corporate Parent by UNIVERSITY OF PITTSBURGH. (Ramsey, Christopher) Docket text modified on 4/18/2007 (sjs). (Entered: 04/17/2007) |
| 04/19/2007 | | ORDER granting 2 Motion to Appear Pro Hac Vice. Attorney Allison K. Young added. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 4/19/07. (smk) (Entered: 04/19/2007) |
| 04/19/2007 | 7 | PRAECIPE to Issue Summons by UNIVERSITY OF PITTSBURGH (Young, Allison) (Entered: 04/19/2007) |
| 04/20/2007 | | Summons Issued as to VARIAN MEDICAL SYSTEMS, INC. (eca) (Entered: 04/20/2007) |
| 04/23/2007 | <u>8</u> | SUMMONS/Return of Service Returned Executed by UNIVERSITY OF |

| | | PITTSBURGH. VARIAN MEDICAL SYSTEMS, INC. served on 4/23/2007, answer due 5/14/2007. (Young, Allison) (Entered: 04/23/2007) |
|------------|-----------|--|
| 04/24/2007 | 9 | MOTION for attorney Daniel Johnson, Jr. to Appear Pro Hac Vice <i>Motion and Affidavit for Admission Pro Hac Vice of Daniel Johnson, Jr.</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A (Daniel Johnson Certificate of Good Standing for USDC NDCA)# 2 Exhibit B [Proposed] Order for Pro Hac Vice Admission (for Daniel Johnson, Jr.))(Johnson, Daniel) (Entered: 04/24/2007) |
| 04/24/2007 | 10 | MOTION for attorney Rita E. Tautkus to Appear Pro Hac Vice <i>Motion</i> and Affidavit for Admission Pro Hac Vice of Rita E. Tautkus by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A (Rita Tautkus Certificate of Good Standing for USDC NDCA)# 2 Exhibit B [Proposed] Order for Pro Hac Vice Admission (for Rita E. Tautkus)) (Tautkus, Rita) (Entered: 04/24/2007) |
| 04/25/2007 | | ORDER granting 9 & 10 Motions to Appear Pro Hac Vice. Attorneys Tautkus and Johnson added for UNIVERSITY OF PITTSBURGH. Textonly entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 4/25/07. (smk) (Entered: 04/25/2007) |
| 04/30/2007 | <u>11</u> | Pro Hac Vice Fees received in the amount \$ 80 receipt # 3983 re 9 Motion to Appear Pro Hac Vice,, 10 Motion to Appear Pro Hac Vice, (brs) (Entered: 04/30/2007) |
| 05/04/2007 | <u>12</u> | NOTICE of Appearance by Henry M. Sneath on behalf of VARIAN MEDICAL SYSTEMS, INC. (Sneath, Henry) (Entered: 05/04/2007) |
| 05/10/2007 | <u>13</u> | MOTION for attorney William L. Anthony, Jr. to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit # 2 Proposed Order)(Sneath, Henry) (Entered: 05/10/2007) |
| 05/10/2007 | 14 | MOTION for attorney Zheng Liu to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit # 2 Proposed Order)(Sneath, Henry) (Entered: 05/10/2007) |
| 05/10/2007 | <u>15</u> | MOTION for attorney Veronica Mullally to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit # 2 Proposed Order)(Sneath, Henry) (Entered: 05/10/2007) |
| 05/10/2007 | <u>16</u> | MOTION for attorney M. Eileen O'Connor to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit # 2 Proposed Order)(Sneath, Henry) (Entered: 05/10/2007) |
| 05/10/2007 | <u>17</u> | MOTION for attorney Matthew H. Poppe to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit # 2 Proposed Order)(Sneath, Henry) (Entered: 05/10/2007) |
| 05/10/2007 | <u>18</u> | Pro Hac Vice Fees received in the amount \$40.00 each, Receipt # 4232 re 15 Motion for Veronica Mullally to Appear Pro Hac Vice, 17 Motion for Matthew Poppe to Appear Pro Hac Vice, 14 Motion for Zheng Liu to |

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| | | Appear Pro Hac Vice, 16 Motion for M. Eileen O'Connor to Appear Pro Hac Vice, and 13 Motion for William Anthony, Jr. to Appear Pro Hac Vice. (eca) (Entered: 05/10/2007) |
|------------|-----------|--|
| 05/14/2007 | | ORDER granting 13 14 15 16 & 17 Motions to Appear Pro Hac Vice. Each attorney is ORDERED to become a register user of this district's ECF System within five (5) days of the date of this order. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order or Notice of the Court on the matter. Signed by Judge Arthur J. Schwab on 5/14/07. (smk) (Entered: 05/14/2007) |
| 05/14/2007 | <u>19</u> | Disclosure Statement by VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 05/14/2007) |
| 05/14/2007 | <u>20</u> | ANSWER to Complaint with Jury Demand, COUNTERCLAIM against UNIVERSITY OF PITTSBURGH by VARIAN MEDICAL SYSTEMS, INC(Sneath, Henry) (Entered: 05/14/2007) |
| 05/14/2007 | <u>21</u> | Proposed Case Management Order by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 05/14/2007) |
| 05/14/2007 | <u>22</u> | REPORT of Rule 26(f) Planning Meeting. (Sneath, Henry) (Entered: 05/14/2007) |
| 05/14/2007 | <u>23</u> | STIPULATION selecting ADR process by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC.(Sneath, Henry) (Entered: 05/14/2007) |
| 05/15/2007 | | ORDER re 23 Stipulation Selecting ADR Process filed by UNIVERSITY OF PITTSBURGH,, VARIAN MEDICAL SYSTEMS, INC. Said Stipulation is incomplete as to sharing the costs of the ADR process and as to identifying a list of three individuals from which to select the neutral. The parties are directed to file a completed Revised Stipulation Selecting ADR Process by 3:00 pm, May 15, 2007. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order or Notice of the Court on the matter. Signed by Judge Arthur J. Schwab on 5/15/07. (mjl,) (Entered: 05/15/2007) |
| 05/15/2007 | <u>24</u> | Revised STIPULATION selecting ADR process by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC.(Sneath, Henry) Docket text modified on 5/16/2007 (sjs). (Entered: 05/15/2007) |
| 05/16/2007 | | Minute Entry for proceedings held before Judge Arthur J. Schwab: Case Management Conference held on 5/16/2007. Parties are to file with the Court by 5:00 pm on 5/21/07 a consented-to Case Management Order. Parties agreed to Early Neutral Evaluation before John H. Perkins. Hon. Donald Ziegler will be appointed Special Master. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. (Court Reporter V. Pease) (ms) (Entered: 05/16/2007) |
| 05/16/2007 | <u>25</u> | ORDER REFERRING CASE to Early Neutral Evaluation, followed by |

| | | mediation. John H. Perkins is appointed as an evaluator. Evaluation shall occur by 7/16/07. Signed by Judge Arthur J. Schwab on 5/16/07. (ms) (Entered: 05/16/2007) |
|------------|-----------|---|
| 05/16/2007 | <u>26</u> | ORDER REFERRING CASE to Special Master. DONALD E. ZIEGLER is appointed Special Master. Signed by Judge Arthur J. Schwab on 5/16/07. (ms) (Entered: 05/16/2007) |
| 05/21/2007 | <u>27</u> | REPORT of Rule 26(f) Planning Meeting. (Sneath, Henry) (Entered: 05/21/2007) |
| 05/21/2007 | <u>28</u> | Proposed Case Management Order by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 05/21/2007) |
| 05/24/2007 | <u>29</u> | Proposed Order (<i>Protective Order</i>) by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 05/24/2007) |
| 06/01/2007 | | ORDER APPROVING 29 Proposed Protective Order. SO ORDERED. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 6/01/07. (smk) (Entered: 06/01/2007) |
| 06/04/2007 | <u>30</u> | CASE MANAGEMENT ORDER: Fact discovery due by 10/5/2007. Plaintiff Opening Claim Construction Brief due 10/19/2007. Defendant Response due 11/02/2007. Reply due 11/09/2007. Hearing on Issue of Claim Construction set for 11/29/2007 09:00 AM before Arthur J. Schwab. Signed by Judge Arthur J. Schwab on 6/04/07. (smk) (Entered: 06/04/2007) |
| 06/04/2007 | 31 | NOTICE of Appearance by Shannon M. Clougherty on behalf of VARIAN MEDICAL SYSTEMS, INC., VARIAN MEDICAL SYSTEMS, INC. (Clougherty, Shannon) (Entered: 06/04/2007) |
| 06/06/2007 | 32 | Plaintiff and Counterclaim Defendant University of Pittsburgh's Reply to Counterclaims of Defendant Varian Medical Systems, Inc. ANSWER to Complaint with Jury Demand by UNIVERSITY OF PITTSBURGH. (Johnson, Daniel) Modified on 6/7/2007 (sjs). ERROR: Wrong event selected. CORRECTION: Redocketed as an Answer to Counterclaim. This document is terminated and removed from public view. (Entered: 06/06/2007) |
| 06/06/2007 | <u>33</u> | ANSWER to 20 Counterclaim by UNIVERSITY OF PITTSBURGH. "Document previously filed electronically."(sjs) (Entered: 06/07/2007) |
| 06/07/2007 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE. ERROR: re 32 Answer to Complaint. Wrong event selected. CORRECTION: Redocketed as an Answer to Counterclaim. This message is for informational purposes only. (sjs) (Entered: 06/07/2007) |
| 06/25/2007 | <u>34</u> | Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf <i>and for Protective Order</i> by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed |

| | | Order Granting Varian Medical System's Motion to Compel Plaintiff University of Pittsburgh to Provide Further Infringement Contentions.pdf)(Poppe, Matthew) (Entered: 06/25/2007) |
|------------|-----------|---|
| 06/25/2007 | 35 | BRIEF by VARIAN MEDICAL SYSTEMS, INC. in Support of 34 Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf and for Protective Order. Memorandum of Law in Support of Emergency Motion to Compel Plaintiff University of Pittsburgh to Provide Further Infringement Contentions and Protective Order filed by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G)(Poppe, Matthew) (Entered: 06/25/2007) |
| 06/25/2007 | <u>36</u> | DISCOVERY DISPUTE CERTIFICATE by VARIAN MEDICAL SYSTEMS, INC. re 34 Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf and for Protective Order. (Poppe, Matthew) (Entered: 06/25/2007) |
| 06/25/2007 | | MOTION for Protective Order (filed with Docket Entry # 34 MOTION to Compel) by VARIAN MEDICAL SYSTEMS, INC. (sjs) (Entered: 06/26/2007) |
| 06/26/2007 | | ORDER Response/Briefing Schedule re 34 Motion to Compel, Brief in Opposition due by noon on 6/28/2007.,Response to Motion due by noon on 6/28/2007.Text-only entry; no PDF document will issue. This text-only entry constitutes the Order or Notice of the Court on the matter. Signed by Judge Arthur J. Schwab on 6/26/07. (mjl) (Entered: 06/26/2007) |
| 06/26/2007 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE. re 34 Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf and for Protective Order. ERROR: MULTIPLE Relief Motion Filed as One Relief. CORRECTION: Attorney advised in future that Motions of this nature are to be filed using the Motion Event and choosing all the Reliefs requested by holding the Control Key down and clicking all the reliefs sought in said motion. Clerk of Court docketed Motion for Protective Order. This message is for informational purposes only. (sjs) (Entered: 06/26/2007) |
| 06/26/2007 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE. re 34 Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf and for Protective Order, 36 Discovery Dispute Certificate, 35 Brief in Support of Motion to Compel. ERROR: Signature on document and filer do not match. CORRECTION: Attorney advised of signature requirements. Attorney to resubmit the documents using the Errata event. This message is for informational purposes only. (sjs) (Entered: 06/26/2007) |
| 06/26/2007 | <u>37</u> | Errata re 34 Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf <i>and for</i> |

| | | Protective Order by VARIAN MEDICAL SYSTEMS, INC. Reason for Correction: Signature on document & filer do not match. (Attachments: # 1 Attachment)(Sneath, Henry) (Entered: 06/26/2007) |
|------------|-----------|--|
| 06/26/2007 | <u>38</u> | Errata re 35 Brief in Support - Other,, <i>Varian's Memorandum of Law in Support of Emergency Motion to Compel Plaintiff to Provide Further Infringement Contention and for Protective Order</i> by VARIAN MEDICAL SYSTEMS, INC. Reason for Correction: Signature on document & filer do not match. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G) (Sneath, Henry) (Entered: 06/26/2007) |
| 06/26/2007 | 39 | Errata re 36 Discovery Dispute Certificate <i>Pursuant to L.R. 37.1</i> by VARIAN MEDICAL SYSTEMS, INC. Reason for Correction: Signature on document and filer do not match. (Sneath, Henry) (Entered: 06/26/2007) |
| 06/28/2007 | 40 | BRIEF in Opposition re 34 Emergency MOTION to Compel Plaintiff University of Pittsburgh to Provide Further Infringment Contentions.pdf and for Protective Order filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Proposed Order)(Tautkus, Rita) (Entered: 06/28/2007) |
| 06/29/2007 | <u>41</u> | ORDER denying 34 Motion to Compel/Motion for Protective Order. Signed by Judge Arthur J. Schwab on 6/29/07. (smk) (Entered: 06/29/2007) |
| 06/29/2007 | 42 | Consent MOTION to Extend Time to Complete ADR Process by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order)(Sneath, Henry) (Entered: 06/29/2007) |
| 07/02/2007 | 43 | ORDER granting 42 Motion to Extend Time for Completion of ADR Process. ADR process shall be completed by 8/31/2007. Signed by Judge Arthur J. Schwab on 7/02/07. (smk) (Entered: 07/02/2007) |
| 08/01/2007 | 44 | MOTION for attorney Darcy A. Paul to Appear Pro Hac Vice <i>Motion</i> and Affidavit for Admission Pro Hac Vice of Darcy A. Paul by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Exhibit B)(Paul, Darcy) (Entered: 08/01/2007) |
| 08/02/2007 | <u>45</u> | ORDER granting 44 Motion to Appear Pro Hac Vice. Attorney Darcy A. Paul added. Signed by Judge Arthur J. Schwab on 8/02/07. (smk) (Entered: 08/02/2007) |
| 08/08/2007 | <u>46</u> | Pro Hac Vice Fees received in the amount \$ 40 receipt # 5836 re 44 Motion to Appear Pro Hac Vice (brs) (Entered: 08/08/2007) |
| 08/15/2007 | <u>47</u> | NOTICE by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC. <i>Joint Proposal for Claim Construction Hearing</i> (Johnson, Daniel) (Entered: 08/15/2007) |
| 08/15/2007 | 48 | NOTICE by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC. <i>Joint Disputed Claim Terms Chart</i> (Attachments: # 1 Appendix Joint Disputed Claim Terms Chart)(Johnson, Daniel) (Entered: |

| | | 08/15/2007) |
|------------|-----------|--|
| 08/15/2007 | <u>49</u> | EXHIBITS in Support of 48 Notice (Other) by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Appendix 2 # 2 Appendix 3 # 3 Appendix 4 # 4 Appendix 5 # 5 Appendix 6 # 6 Appendix 7A # 7 Appendix 7B # 8 Appendix 8 # 9 Appendix 9 # 10 Appendix 10 # 11 Appendix 11 # 12 Appendix 12 # 13 Appendix 13 # 14 Appendix 14 # 15 Appendix 15 # 16 Appendix 16 # 17 Appendix 17 # 18 Appendix 18 # 19 Appendix 19 # 20 Appendix 20) (Johnson, Daniel) (Entered: 08/15/2007) |
| 08/15/2007 | <u>50</u> | NOTICE by UNIVERSITY OF PITTSBURGH Expert Report and Disclosure of Michael C. Schell, Ph.D. Concerning Claim Construction of U.S. Patent Nos. 5,727,554 and 5,784,431 (Attachments: # 1 Exhibit Expert Report of Michael C. Schell, Ph.D. Concerning Claim Construction of USPat Nos 5,727,554 and 5,784,431 # 2 Appendix A # 3 Appendix B # 4 Appendix C # 5 Appendix D # 6 Appendix E # 7 Appendix F # 8 Appendix G # 9 Appendix H # 10 Appendix I # 11 Appendix J # 12 Appendix K # 13 Appendix L # 14 Appendix M # 15 Appendix N # 16 Appendix O # 17 Appendix P)(Johnson, Daniel) (Entered: 08/15/2007) |
| 08/15/2007 | <u>51</u> | Disclosure of Expert Testimony on Claim Construction by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Exhibit)(Poppe, Matthew) Title modified on 8/16/2007 (sjs). (Entered: 08/15/2007) |
| 08/15/2007 | <u>52</u> | Expert Report re 51 Disclosure of Expert Testimony on Claim Construction by VARIAN MEDICAL SYSTEMS, INC. Expert: Dr. Steve B. Jiang, Ph.D (Poppe, Matthew) Modified on 8/16/2007 (sjs). (Entered: 08/15/2007) |
| 08/15/2007 | <u>53</u> | Disclosure of Testimony on Claim Construction by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit)(Poppe, Matthew) Title modified on 8/16/2007 (sjs). (Entered: 08/15/2007) |
| 08/15/2007 | <u>54</u> | Expert Report re 53 Disclosure of Testimony on Claim Construction by VARIAN MEDICAL SYSTEMS, INC. Expert: James M. Balter, Ph.D (Poppe, Matthew) Modified on 8/16/2007 (sjs). (Entered: 08/15/2007) |
| 08/16/2007 | <u>55</u> | EXHIBITS in Support of 54 Expert Report by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L # 13 Exhibit M # 14 Exhibit N # 15 Exhibit O # 16 Exhibit P # 17 Exhibit Q # 18 Exhibit R # 19 Exhibit S # 20 Exhibit T # 21 Exhibit U # 22 Exhibit V # 23 Exhibit W # 24 Exhibit X # 25 Exhibit Y)(Poppe, Matthew) (Entered: 08/16/2007) |
| 08/16/2007 | <u>56</u> | EXHIBITS in Support of <u>52</u> Expert Report by VARIAN MEDICAL SYSTEMS, INC (Attachments: # <u>1</u> Exhibit A # <u>2</u> Exhibit B # <u>3</u> Appendix A # <u>4</u> Appendix B # <u>5</u> Appendix C # <u>6</u> Appendix D)(Poppe, Matthew) (Entered: 08/16/2007) |

| 08/16/2007 | <u>57</u> | EXHIBITS in Support of <u>54</u> Expert Report by VARIAN MEDICAL SYSTEMS, INC (Attachments: # <u>1</u> Exhibit Z # <u>2</u> Exhibit AA)(Poppe, Matthew) (Entered: 08/16/2007) |
|------------|-----------|---|
| 08/16/2007 | | ORDER The <u>47</u> Joint Proposal for Claim Construction Hearing is referred to the Special Master for review and ruling. Special Master should enter a procedural order relating to said Claim Construction Hearing which he believes would establish the fairest procedure and the one most helpful to the Special Master in reaching his decision on the claim construction issues. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 8/16/07. (smk) (Entered: 08/16/2007) |
| 08/16/2007 | <u>58</u> | MOTION to Quash Subpoena Duces Tecum Directed to Non-Party Eckert Seamans Cherin & Mellott, LLC by Defendant Varian Medical Services, Inc. <i>and Objections</i> by ECKERT SEAMANS CHERIN & MELLOTT, LLC. (Attachments: # 1 Exhibit 1 # 2 Proposed Order) (Kenrick, John) (Entered: 08/16/2007) |
| 08/17/2007 | <u>59</u> | MOTION for attorney M. Brendan Smith to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit) (Sneath, Henry) (Entered: 08/17/2007) |
| 08/17/2007 | <u>60</u> | Errata re 59 MOTION for attorney M. Brendan Smith to Appear Pro Hac Vice by VARIAN MEDICAL SYSTEMS, INC Reason for Correction: I forgot to attach the proposed order to the Motion. (Sneath, Henry) (Entered: 08/17/2007) |
| 08/17/2007 | 61 | Pro Hac Vice Fees received in the amount \$40.00, Receipt # 6000, Re 59 Motion for Brendan Smith to Appear Pro Hac Vice. (eca) (Entered: 08/17/2007) |
| 08/21/2007 | <u>62</u> | ORDER granting 59 Motion to Appear Pro Hac Vice. Attorney M. Brendan Smith added. Signed by Judge Arthur J. Schwab on 8/21/07. (smk) (Entered: 08/21/2007) |
| 08/23/2007 | <u>63</u> | MOTION for attorney Bradford A. Cangro to Appear Pro Hac Vice by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Cangro, Bradford) (Entered: 08/23/2007) |
| 08/23/2007 | <u>64</u> | MOTION for attorney John D. Zele to Appear Pro Hac Vice <i>Motion and Affidavit for Admission Pro Hac Vice of John D. Zele</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Exhibit B)(Zele, John) (Entered: 08/23/2007) |
| 08/23/2007 | <u>65</u> | Pro Hac Vice Fees received in the amount \$ 40 receipt # 6084 re 63 Motion to Appear Pro Hac Vice (ept) (Entered: 08/23/2007) |
| 08/23/2007 | <u>66</u> | Pro Hac Vice Fees received in the amount \$ 40 receipt # 6086 re 64 Motion to Appear Pro Hac Vice (ept) (Entered: 08/23/2007) |
| 08/28/2007 | | ORDER granting 63 Motion to Appear Pro Hac Vice and granting 64 Motion to Appear Pro Hac Vice. Attorneys Cangro and Zele added. Text- |

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| | | only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 8/28/07. (smk) (Entered: 08/28/2007) |
| 08/30/2007 | | ORDER REQUIRING RESPONSE to Motion to Quash. Responses due by 9/4/2007 at 4:00 PM. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 8/30/07. (smk) (Entered: 08/30/2007) |
| 09/04/2007 | <u>67</u> | BRIEF in Opposition re 58 MOTION to Quash Subpoena Duces Tecum Directed to Non-Party Eckert Seamans Cherin & Mellott, LLC by Defendant Varian Medical Services, Inc. <i>and Objections</i> filed by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order)(Sneath, Henry) (Entered: 09/04/2007) |
| 09/05/2007 | <u>68</u> | MOTION for Discovery <i>for Leave to Take More Than Ten (10) Fact Depositions</i> by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Discovery Dispute Certificate Pursuant to L.R. 37.1 # 2 Proposed Order)(Sneath, Henry) (Entered: 09/05/2007) |
| 09/06/2007 | | ORDER Response/Briefing Schedule. Response to <u>68</u> due by 9/12/2007 by Noon. Signed by Judge Arthur J. Schwab on 9/6/07. (ms) Modified on 9/6/2007 to add that this is a text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter (sjs). (Entered: 09/06/2007) |
| 09/06/2007 | <u>69</u> | ORDER granting 58 Motion to Quash. Signed by Judge Arthur J. Schwab on 9/6/07. (ms) (Entered: 09/06/2007) |
| 09/07/2007 | 70 | REPORT of Early Neutral Evaluation Settlement has not been reached. Amount of discovery conducted: Written discovery, two depositions to date. For cases participating in the Court's ADR pilot project, the parties are reminded of their obligation to complete the ADR questionnaire and return same to the Clerk of Court within 5 days of the conclusion of the ADR process. The questionnaire can be accessed at www.pawd.uscourts.gov. Click on the ADR icon.ENE session was held held on 8/29/2007.(Johnson, Daniel) (Entered: 09/07/2007) |
| 09/12/2007 | 71 | RESPONSE to Motion re 68 MOTION for Discovery for Leave to Take More Than Ten (10) Fact Depositions filed by UNIVERSITY OF PITTSBURGH. (Johnson, Daniel) (Entered: 09/12/2007) |
| 09/12/2007 | | ORDER denying 68 Motion for Discovery. After consideration of defendant's motion for leave to take more than ten (10) fact depositions (doc. no. 68) and plaintiffs response thereto (doc. no. 71), said motion is DENIED, because said motion is premature, and said motion fails to establish a need for more than ten (10) witnesses at this time. Chief trial counsel for the parties, plus Pittsburgh based counsel familiar with this Courts practices and procedures, shall meet face-to-face in Pittsburgh before September 28, 2007 to develop a mutual discovery plan. Signed by Judge Arthur J. Schwab on 9/12/07. Text-only entry; no PDF |

| | | document will issue. This text-only entry constitutes the Courts order or notice on the matter. (ms) (Entered: 09/12/2007) |
|------------|-----------|---|
| 09/28/2007 | 72 | Emergency MOTION to Compel Defendant to Conduct Depositions in Compliance with Court Orders <i>Plaintiff's</i> , Emergency MOTION for Discovery by UNIVERSITY OF PITTSBURGH. (Johnson, Daniel) (Entered: 09/28/2007) |
| 09/28/2007 | 73 | DECLARATION Declaration of Darcy A. Paul in Support of Plaintiff's Emergency Motion to Compel Defendant to Conduct Depositions in Compliance with Court Orders by UNIVERSITY OF PITTSBURGH Affiant: Darcy A. Paul (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L # 13 Exhibit M # 14 Exhibit N # 15 Exhibit O # 16 Exhibit P)(Paul, Darcy) (Entered: 09/28/2007) |
| 09/28/2007 | <u>74</u> | DISCOVERY DISPUTE CERTIFICATE by UNIVERSITY OF PITTSBURGH. (Paul, Darcy) (Entered: 09/28/2007) |
| 10/01/2007 | | ORDER REQUIRING RESPONSE to 72 Motion to Compel. Responses due by 10/2/2007 at noon. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order or Notice of the Court on the matter. Signed by Judge Arthur J. Schwab on 10/01/07. (smk) (Entered: 10/01/2007) |
| 10/01/2007 | 75 | MOTION for attorney Michael F. Heafey, Esquire to Appear Pro Hac Vice Filing fee \$ 40 Receipt # 699101 by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Affidavit # 2 Proposed Order) (Sneath, Henry) (Entered: 10/01/2007) |
| 10/02/2007 | <u>76</u> | Counter MOTION to Compel Plaintiff to Cooperate in Deposition Scheduling by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order # 2 Proposed Order)(Sneath, Henry) (Entered: 10/02/2007) |
| 10/02/2007 | 77 | BRIEF by VARIAN MEDICAL SYSTEMS, INC. in Support of 76 Counter MOTION to Compel Plaintiff to Cooperate in Deposition Scheduling. and in Support of Varian's Opposition to Plaintiff's Emergency Motion filed by VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 10/02/2007) |
| 10/02/2007 | 78 | DECLARATION re 76 Counter MOTION to Compel Plaintiff to Cooperate in Deposition Scheduling, 77 Brief in Support - Other, by VARIAN MEDICAL SYSTEMS, INC. Affiant: Matthew H. Poppe (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L # 13 Exhibit M # 14 Exhibit N # 15 Exhibit O # 16 Exhibit P # 17 Exhibit Q # 18 Exhibit R # 19 Exhibit S # 20 Exhibit T # 21 Exhibit U # 22 Exhibit V # 23 Exhibit W # 24 Exhibit X # 25 Exhibit Y # 26 Exhibit Z # 27 Exhibit AA # 28 Exhibit BB # 29 Exhibit CC # 30 Exhibit DD # 31 Exhibit EE # 32 Exhibit FF # 33 Exhibit GG # 34 Exhibit HH)(Sneath, Henry) Modified on 10/2/2007 |

| | | (sjs). (Entered: 10/02/2007) |
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| 10/02/2007 | <u>79</u> | DISCOVERY DISPUTE CERTIFICATE by VARIAN MEDICAL SYSTEMS, INC. re 76 Counter MOTION to Compel Plaintiff to Cooperate in Deposition Scheduling. (Sneath, Henry) (Entered: 10/02/2007) |
| 10/03/2007 | | ORDER REQUIRING RESPONSE to 76 Motion to Compel. Responses due by 10/5/2007 at NOON. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 10/03/07. (smk) (Entered: 10/03/2007) |
| 10/03/2007 | 80 | ORDER granting 75 Motion to Appear Pro Hac Vice. Attorney Heafey added for defendant. Signed by Judge Arthur J. Schwab on 10/03/07. (smk) (Entered: 10/03/2007) |
| 10/05/2007 | 81 | RESPONSE to Motion re 76 Counter MOTION to Compel Plaintiff to Cooperate in Deposition Scheduling <i>University of Pittsburgh's Response to Defendant's Emergency Counter-Motion to Compel Plaintiff to Cooperate in Deposition Scheduling</i> filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order)(Paul, Darcy) (Entered: 10/05/2007) |
| 10/05/2007 | 82 | DECLARATION Declaration of Darcy A. Paul in Support of Plaintiff's Response to Defendant Varian Medical Systems, Inc.'s Emergency Countermotion to Compel Plaintiff to Cooperate in Deposition Scheduling by UNIVERSITY OF PITTSBURGH Affiant: Darcy A. Paul (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H)(Paul, Darcy) (Entered: 10/05/2007) |
| 10/05/2007 | <u>83</u> | ORDER granting in part and denying in part 72 Motion to Compel; granting in part and denying in part 72 Motion for Discovery; granting in part and denying in part 76 Motion to Compel. Signed by Judge Arthur J. Schwab on 10/5/07. (ms) (Entered: 10/05/2007) |
| 10/05/2007 | <u>84</u> | DISCOVERY DISPUTE CERTIFICATE by UNIVERSITY OF PITTSBURGH. (Paul, Darcy) (Entered: 10/05/2007) |
| 10/05/2007 | <u>85</u> | MOTION to Compel Production of Witnesses, MOTION for Discovery University of Pittsburgh's Motion to Compel Defendant to Produce Witnesses by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order)(Paul, Darcy) (Entered: 10/05/2007) |
| 10/05/2007 | <u>86</u> | DECLARATION Declaration of Darcy A. Paul in Support of University of Pittsburgh's Motion to Compel Defendant to Produce Witnesses by UNIVERSITY OF PITTSBURGH Affiant: Darcy A. Paul (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L # 13 Exhibit M)(Paul, Darcy) (Entered: 10/05/2007) |

| 10/09/2007 | | ORDER Response/Briefing Schedule re <u>85</u> Motion to Compel, Motion for Discovery. Responses due by 10/10/2007 at Noon. Text-only entry; no PDF document will issue. This text-only entry constitutes the Courts order or notice on the matter.Signed by Judge Arthur J. Schwab on 10/9/07. (ms) (Entered: 10/09/2007) |
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| 10/10/2007 | <u>87</u> | BRIEF by VARIAN MEDICAL SYSTEMS, INC. in Opposition to <u>85</u> MOTION to Compel Production of Witnesses MOTION for Discovery <i>University of Pittsburgh's Motion to Compel Defendant to Produce Witnesses</i> . filed by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Affidavit Declaration of Matthew Poppe)(Clougherty, Shannon) (Entered: 10/10/2007) |
| 10/10/2007 | <u>88</u> | Joint MOTION for Discovery to Depose Michael Chen and Stanley Mansfield in California Due to Witness Medical Concerns by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 10/10/2007) |
| 10/10/2007 | | ORDER denying <u>85</u> Motion to Compel. After consideration of the Plaintiff's motion and defendant's brief in opposition <u>87</u> , said motion is DENIED, without prejudice until all parties have fully completed the discovery schedule re document no. <u>83</u> . Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 10/10/07. (smk) (Entered: 10/10/2007) |
| 10/11/2007 | <u>89</u> | ORDER granting <u>88</u> Emergency Joint Motion to Depose Michael Chen and Stanley Mansfield. Signed by Judge Arthur J. Schwab on 10/11/07. (smk) (Entered: 10/11/2007) |
| 10/12/2007 | <u>90</u> | MOTION for Clarification as to <u>83</u> Order on Motion to Compel, Order on Motion for Discovery, by UNIVERSITY OF PITTSBURGH. (Attachments: # <u>1</u> Proposed Order)(Tautkus, Rita) (Entered: 10/12/2007) |
| 10/12/2007 | <u>91</u> | DISCOVERY DISPUTE CERTIFICATE by UNIVERSITY OF PITTSBURGH re 90 MOTION for Clarification as to 83 Order on Motion to Compel, Order on Motion for Discovery,. (Tautkus, Rita) (Entered: 10/12/2007) |
| 10/12/2007 | <u>92</u> | RESPONSE to Motion re 90 MOTION for Clarification as to 83 Order on Motion to Compel, Order on Motion for Discovery, <i>Varian's Response to Plaintiff's "Motion to Clarify Order of Court Re: Deposition Schedule"</i> filed by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 10/12/2007) |
| 10/15/2007 | <u>93</u> | ORDER granting 90 Motion for Clarification. Signed by Judge Arthur J. Schwab on 10/15/07. (smk) (Entered: 10/15/2007) |
| 10/17/2007 | <u>94</u> | AFFIDAVIT re <u>83</u> Order on Motion to Compel, Order on Motion for Discovery, <i>Affidavit of John D. Zele</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # <u>1</u> Exhibit A)(Tautkus, Rita) (Entered: 10/17/2007) |

| 10/19/2007 | <u>95</u> | MOTION for Leave to File Excess Pages <i>Plaintiff University of Pittsburgh's Motion to Exceed Page Limit</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order)(Paul, Darcy) (Entered: 10/19/2007) |
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| 10/19/2007 | 96 | NOTICE by UNIVERSITY OF PITTSBURGH of Filing of Opening Claim Construction Brief (Tautkus, Rita); ERROR: Wrong event slected. Redocketed as Opening Claim Construction Brief at Doc. # 102. This document removed from public view. Modified on 10/29/2007. (tt) (Entered: 10/19/2007) |
| 10/19/2007 | <u>97</u> | EXHIBITS in Support re: 102 by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit 1 # 2 Exhibit 2 # 3 Exhibit 3 # 4 Exhibit 4 # 5 Exhibit 5 # 6 Exhibit 6 # 7 Exhibit 7 # 8 Exhibit 8 # 9 Exhibit 9 # 10 Exhibit 10)(Tautkus, Rita) Modified on 10/29/2007. (tt) (Entered: 10/19/2007) |
| 10/19/2007 | <u>98</u> | EXHIBITS in Support re: 102 by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit 11 # 2 Exhibit 12 # 3 Exhibit 13 # 4 Exhibit 14 # 5 Exhibit 15 # 6 Exhibit 16 # 7 Exhibit 17 # 8 Exhibit 18 # 9 Exhibit 19 # 10 Exhibit 20 # 11 Exhibit 21)(Tautkus, Rita) Modified on 10/29/2007. (tt) (Entered: 10/19/2007) |
| 10/19/2007 | <u>99</u> | EXHIBITS in Support re: 102 by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit 22 # 2 Exhibit 23 # 3 Exhibit 24 # 4 Exhibit 25 # 5 Exhibit 26 # 6 Exhibit 27 # 7 Exhibit 28)(Tautkus, Rita) Modified on 10/29/2007. (tt) (Entered: 10/19/2007) |
| 10/19/2007 | <u>100</u> | NOTICE by UNIVERSITY OF PITTSBURGH of Extrinsic Evidence (Tautkus, Rita) (Entered: 10/19/2007) |
| 10/19/2007 | <u>102</u> | OPENING Claim Construction Brief filed by UNIVERSITY OF PITTSBURGH. "Document previously filed electronically." (tt) (Entered: 10/29/2007) |
| 10/23/2007 | <u>101</u> | ORDER granting 95 Motion for Leave to File Excess Pages. Signed by Judge Arthur J. Schwab on 10/22/07. (smk) (Entered: 10/23/2007) |
| 10/29/2007 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE. ERROR: re 96 Notice (Other); Wrong event selected. CORRECTION: Re-docketed as Opening Claim Construction Brief at doc. # 102. This message is for informational purposes only. (tt) (Entered: 10/29/2007) |
| 11/01/2007 | <u>103</u> | NOTICE by UNIVERSITY OF PITTSBURGH <i>Notice of Plaintiff's Claim Construction Tutorial</i> (Attachments: # 1 Exhibit A # 2 Exhibit B) (Paul, Darcy) (Entered: 11/01/2007) |
| 11/02/2007 | <u>104</u> | MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 11/02/2007) |
| 11/02/2007 | | ORDER granting 104 Motion for Leave to File documents under seal; opposing counsel does not object. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order or Notice of the |

| | | Court on the matter. Signed by Judge Arthur J. Schwab on 11/02/07. (mjl) (Entered: 11/02/2007) |
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| 11/02/2007 | 105 | NOTICE by VARIAN MEDICAL SYSTEMS, INC. of Defendant's Certification that Plaintiff Does Not Object to Defendant's Motion for Leave to File Documents Under Seal (Clougherty, Shannon) (Entered: 11/02/2007) |
| 11/02/2007 | 106 | SEALED DOCUMENT by VARIAN MEDICAL SYSTEMS, INC. (sjs) (Entered: 11/02/2007) |
| 11/02/2007 | 107 | NOTICE by VARIAN MEDICAL SYSTEMS, INC. <i>IDENTIFICATION OF EXTRINSIC EVIDENCE</i> (Attachments: # 1 Exhibit 1 # 2 Exhibit 1-A # 3 Exhibit 1-B # 4 Exhibit 1-C # 5 Exhibit 2 # 6 Exhibit 3 # 7 Exhibit 4 # 8 Exhibit 5 # 9 Exhibit 6 # 10 Exhibit 7 # 11 Exhibit 8 # 12 Exhibit 9 # 13 Exhibit 10 # 14 Exhibit 11 # 15 Exhibit 12 # 16 Exhibit 13 # 17 Exhibit 14 # 18 Exhibit 15 # 19 Exhibit 16 # 20 Exhibit 17 # 21 Exhibit 18 # 22 Exhibit 19 # 23 Exhibit 20)(Poppe, Matthew) Modified on 11/5/2007 (sjs). (Entered: 11/02/2007) |
| 11/02/2007 | <u>108</u> | OPENING Claim Construction Brief <i>VARIAN MEDICAL SYSTEM</i> , <i>INC.'S CLAIM CONSTRUCTION BRIEF</i> filed by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 11/02/2007) |
| 11/05/2007 | <u>109</u> | MOTION for Leave to File Excess Pages Plaintiff University of Pittsburgh's Motion to Exceed Page Limit for Claim Construction Reply Brief by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order)(Paul, Darcy) (Entered: 11/05/2007) |
| 11/06/2007 | 110 | ORDER granting 109 Motion for Leave to Exceed Page Limit for Claim Construction Reply Brief. Signed by Judge Arthur J. Schwab on 11/06/07. (smk) (Entered: 11/06/2007) |
| 11/09/2007 | <u>111</u> | MOTION to Seal <i>Plaintiff University of Pittsburgh's Motion for Leave of Court to File Document Under Seal</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order)(Paul, Darcy) (Entered: 11/09/2007) |
| 11/09/2007 | 112 | NOTICE by UNIVERSITY OF PITTSBURGH Plaintiff's Certification That Defendant Does Not Object to Plaintiffs Motion For Leave to File Document Under Seal (Paul, Darcy) (Entered: 11/09/2007) |
| 11/09/2007 | 113 | REPLY CLAIM CONSTRUCTION BRIEF re 108 Opening Claim Construction Brief, filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibits 1-5)(Tautkus, Rita) Modified on 11/13/2007 to add document linkage (sjs). (Entered: 11/09/2007) |
| 11/13/2007 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 113 Reply Brief. ERROR: Document incorrectly linked or no linkage was provided. CORRECTION: Linked to appropriate document. This message is for informational purposes only. (sjs) (Entered: 11/13/2007) |
| 11/13/2007 | <u>114</u> | Proposed Order Re: Procedures for Claim Construction Hearing by UNIVERSITY OF PITTSBURGH, VARIAN MEDICAL SYSTEMS, |

| | | INC (Clougherty, Shannon) (Entered: 11/13/2007) |
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| 11/13/2007 | <u>115</u> | ORDER granting 111 Motion for Leave to File Document Under Seal. Signed by Judge Arthur J. Schwab on 11/13/07. (smk) (Entered: 11/13/2007) |
| 11/14/2007 | 116 | SEALED DOCUMENT (Exhibit A) by UNIVERSITY OF PITTSBURGH. (sjs) (Entered: 11/14/2007) |
| 11/15/2007 | <u>117</u> | NOTICE by VARIAN MEDICAL SYSTEMS, INC. of Filing of CD Tutorial (Clougherty, Shannon) (Entered: 11/15/2007) |
| 11/15/2007 | 118 | NOTICE by VARIAN MEDICAL SYSTEMS, INC. re 117 Notice (Other) <i>VARIAN'S TUTORIAL (PART 1)</i> (Poppe, Matthew) (Entered: 11/15/2007) |
| 11/15/2007 | <u>119</u> | NOTICE by VARIAN MEDICAL SYSTEMS, INC. re 118 Notice (Other) <i>VARIAN'S TUTORIAL (PART 2)</i> (Poppe, Matthew) (Entered: 11/15/2007) |
| 11/16/2007 | | Remark: CD of Varian Claim Construction Tutorial recieved by the Clerk's Office and forwarded to Judge (jv) (Entered: 11/16/2007) |
| 11/20/2007 | 120 | Emergency MOTION to Strike 117 Notice (Other), 119 Notice (Other), Remark, 118 Notice (Other) <i>Plaintiff University of Pittsburgh's Emergency Motion to Strike Defendant's Tutorial</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Paul, Darcy) (Entered: 11/20/2007) |
| 11/20/2007 | 121 | NOTICE by UNIVERSITY OF PITTSBURGH re 120 Emergency MOTION to Strike 117 Notice (Other), 119 Notice (Other), Remark, 118 Notice (Other) Plaintiff University of Pittsburgh's Emergency Motion to Strike Defendant's TutorialEmergency MOTION to Strike 117 Notice (Other), 119 Notice (Other), Remark, 118 Notice (Other) Plaintiff University of Pittsburgh's Emergency Motion to Strike Defendant's Tutorial DISPUTE CERTIFICATE (Paul, Darcy) (Entered: 11/20/2007) |
| 11/21/2007 | 122 | ORDER REQUIRING RESPONSE to 120 Motion to Strike. Response to Motion due by 11/29/2007 at Noon. Signed by Judge Arthur J. Schwab on 11/21/07. (eca) (Entered: 11/21/2007) |
| 11/21/2007 | 123 | Unopposed MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 11/21/2007) |
| 11/21/2007 | 124 | ORDER granting 123 Motion for Leave to File Documents under Seal. Signed by Judge Arthur J. Schwab on 11/21/07. (eca) (Entered: 11/21/2007) |
| 11/21/2007 | 125 | Emergency MOTION for Clarification as to 122 Response/Briefing Schedule <i>Emergency Motion to Clarify Order of Court Requiring Response to Motion to Strike</i> by UNIVERSITY OF PITTSBURGH. (Tautkus, Rita) (Entered: 11/21/2007) |

| 11/21/2007 | 126 | Unopposed MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order Granting Defendant's Motion for Leave to File Documents Under Seal) (Liu, Zheng) (Entered: 11/21/2007) |
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| 11/21/2007 | 127 | SEALED MOTION by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Proposed Order) (jv) Modified on 11/26/2007 to correct file date. (crw) (Entered: 11/23/2007) |
| 11/21/2007 | 128 | SEALED DOCUMENT in Support of 127 Sealed Motion by VARIAN MEDICAL SYSTEMS, INC. (jv) Modified on 11/26/2007 to correct file date. (crw) (Entered: 11/23/2007) |
| 11/21/2007 | 129 | SEALED DOCUMENT in Support of 127 Sealed Motion SYSTEMS, INC. (jv) Modified on 11/26/2007 to reflect correct file date. (crw) Modified on 11/26/2007 to correct file date. (crw) (Entered: 11/23/2007) |
| 11/21/2007 | 130 | SEALED DOCUMENT in Support of 127 Sealed Motion by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Exhibit A # Exhibit B # Exhibit C # Exhibit D # Exhibit E # Exhibit F # Exhibit G # Exhibit H # Exhibit I # Exhibit I (Cont.) # Exhibit J # Exhibit K # Exhibit L # Exhibit M # Exhibit N # Exhibit O # Exhibit P # Exhibit Q # Exhibit R # Exhibit S # Exhibit T # Exhibit W # Exhibit X # Exhibit Y # Exhibit Z # Exhibit AA # Exhibit BB # Exhibit CC # Exhibit DD # Envelope GG # Exhibit U # Exhibit V # Exhibit EE # Exhibit FF) (jv) Modified on 11/26/2007 to correct file date. (crw) (Entered: 11/23/2007) |
| 11/26/2007 | | TEXT ORDER denying 125 Motion for Clarification. Signed by Judge Arthur J. Schwab on 11/26/07. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (smk) (Entered: 11/26/2007) |
| 11/26/2007 | 131 | ORDER granting 126 Motion for Leave to File Documents Under Seal. Signed by Judge Arthur J. Schwab on 11/26/07. (smk) (Entered: 11/26/2007) |
| 11/26/2007 | 132 | ORDER re 127 SEALED MOTION filed by VARIAN MEDICAL SYSTEMS, INC. Response to Motion due by 12/5/2007. Signed by Judge Arthur J. Schwab on 11/26/07. (smk) (Entered: 11/26/2007) |
| 11/26/2007 | | TEXT ORDER: The Special Master shall rule on 120 Emergency Motion to Strike Defendant's Tutorial and 127 Sealed Motion by Varian Medical Systems, Inc. (re: Motion for Summary Judgment). Signed by Judge Arthur J. Schwab on 11/26/07. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (smk) (Entered: 11/26/2007) |
| 11/26/2007 | 133 | Unopposed MOTION To Identify Additional Extrinsic Evidence (<i>Emergency Motion</i>) by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 11/26/2007) |
| 11/26/2007 | 134 | SEALED DOCUMENT (Transcript Excerpt 37:15-53:4) re: 131 Order |

| | | by VARIAN MEDICAL SYSTEMS, INC. (jsp) (Entered: 11/27/2007) |
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| 11/26/2007 | 135 | SEALED DOCUMENT (Transcript Excerpt 92:4-135:2) re: 131 Order by VARIAN MEDICAL SYSTEMS, INC. (jsp) (Entered: 11/27/2007) |
| 11/26/2007 | 136 | SEALED DOCUMENT (Transcript Excerpt 161:7-169:3) re: 131 Order by VARIAN MEDICAL SYSTEMS, INC. (jsp) Modified on 11/28/2007. (tt) (Entered: 11/27/2007) |
| 11/26/2007 | 137 | SEALED DOCUMENT (Transcript Excerpt 202:11-238:21) re: 131 Order by VARIAN MEDICAL SYSTEMS, INC. (jsp) (Entered: 11/27/2007) |
| 11/27/2007 | <u>138</u> | ORDER granting 133 Motion Identify Additional Extrinsic Evidence as follows: Defendant may add excerpts listed in paragraph 8 of its unopposed motion of the Charalambos Athanassiou deposition transcript as extrinsic evidence for the Claim Construction Hearing 11/29/07. Signed by Judge Arthur J. Schwab on 11/27/07. (eca) (Entered: 11/27/2007) |
| 11/28/2007 | <u>139</u> | NOTICE by UNIVERSITY OF PITTSBURGH Dispute Certificate (Paul, Darcy) (Entered: 11/28/2007) |
| 11/28/2007 | <u>140</u> | MOTION to Seal <i>Plaintiff's Motion for Leave of Court to File Documents Under Seal</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Paul, Darcy) (Entered: 11/28/2007) |
| 11/28/2007 | <u>141</u> | NOTICE by UNIVERSITY OF PITTSBURGH re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal, 139 Notice (Other) Dispute Certificate (Paul, Darcy) (Entered: 11/28/2007) |
| 11/28/2007 | 142 | Emergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY OF PITTSBURGH Plaintiff University of Pittsburgh's Emergency Motion to Identify Additional Extrinsic Evidence by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Paul, Darcy) (Entered: 11/28/2007) |
| 11/28/2007 | 143 | DECLARATION re 142 Emergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY OEmergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY O Declaration of Darcy A. Paul in Support of Plaintiff University of Pittsburgh's Emergency Motion to Identify Additional Extrinsic Evidence by UNIVERSITY OF PITTSBURGH Affiant: Darcy A. Paul (Attachments: # 1 Exhibit A # 2 Exhibit B) (Paul, Darcy) (Entered: 11/28/2007) |

| 11/29/2007 | | ORDER REQUIRING RESPONSE TO MOTIONS: 140 Motion to Seal and 142 Motion to Seal responses due by 11/29/2007 at 02:00 PM. Signed by Judge Arthur J. Schwab on 11/29/07. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 11/29/2007) |
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| 11/29/2007 | 144 | RESPONSE to Motion re 120 Emergency MOTION to Strike 117 Notice (Other), 119 Notice (Other), Remark, 118 Notice (Other) <i>Plaintiff University of Pittsburgh's Emergency Motion to Strike Defendant's Tutorial</i> Emergency MOTION to Strike 117 Notice (Other), 119 Notice (Other), Remark, 118 Notice (Other) <i>Plaintiff University of Pittsburgh's Emergency Motion to Strike Defendant's Tutorial</i> filed by VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 11/29/2007) |
| 11/29/2007 | <u>145</u> | RESPONSE to Motion re 142 Emergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY OEmergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY O filed by VARIAN MEDICAL SYSTEMS, INC (Clougherty, Shannon) (Entered: 11/29/2007) |
| 11/29/2007 | 146 | RESPONSE to Motion re 142 Emergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY OEmergency MOTION re 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by UNIVERSITY OF PITTSBURGH, 141 Notice (Other) filed by UNIVERSITY OF PITTSBURGH, 139 Notice (Other) filed by UNIVERSITY O, 140 MOTION to Seal Plaintiff's Motion for Leave of Court to File Documents Under Seal filed by VARIAN MEDICAL SYSTEMS, INC (Clougherty, Shannon) (Entered: 11/29/2007) |
| 11/29/2007 | <u>147</u> | ORDER granting 140 Plaintiff's Motion for Leave of Court to File Documents Under Seal. Signed by Judge Arthur J. Schwab on 11/29/07. (eca) (Entered: 11/29/2007) |
| 11/29/2007 | <u>148</u> | ORDER denying 142 Plaintiff's Emergency Motion to Identify Additional Extrinsic Evidence. Signed by Judge Arthur J. Schwab on 11/29/07. (eca) (Entered: 11/29/2007) |
| 12/05/2007 | <u>149</u> | MOTION for Joinder <i>Plaintiff University of Pittsburgh's Motion</i> Pursuant to Federal Rule of Civil Procedure 19 to Join Carnegie Mellon University by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 12/05/2007) |
| 12/05/2007 | <u>150</u> | DECLARATION re 149 MOTION for Joinder Plaintiff University of Pittsburgh's Motion Pursuant to Federal Rule of Civil Procedure 19 to |

| | | Join Carnegie Mellon University Declaration of Darcy A. Paul in Support of Plaintiff University of Pittsburgh's Motion Pursuant to Federal Rule of Civil Procedure 19 to Join Carnegie Mellon University by UNIVERSITY OF PITTSBURGH Affiant: Darcy A. Paul (Attachments: # 1 Exhibit A (Confidential) # 2 Exhibit B (Confidential) # 3 Exhibit C (Confidential) # 4 Exhibit D) (Paul, Darcy) (Entered: 12/05/2007) |
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| 12/05/2007 | <u>151</u> | MOTION to Seal <i>Plaintiff's Motion for Leave of Court to File Documents Under Seal</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # <u>1</u> Proposed Order) (Paul, Darcy) (Entered: 12/05/2007) |
| 12/05/2007 | <u>152</u> | MOTION to Seal <i>Plaintiff's Motion for Leave of Court to File Documents Under Seal</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # <u>1</u> Proposed Order) (Tautkus, Rita) (Entered: 12/05/2007) |
| 12/05/2007 | <u>153</u> | BRIEF in Opposition re 127 SEALED MOTION Redacted Plaintiff University of Pittsburgh's Opposition to Defendant Varian Medical Systems, Inc.'s Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 12/05/2007) |
| 12/05/2007 | 154 | DECLARATION re 153 Brief in Opposition to Motion, <i>Declaration of Darcy A. Paul in Support of Plaintiff University of Pittsburgh's Opposition to Defendant Varian Medical Systems Inc.'s Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing</i> by UNIVERSITY OF PITTSBURGH Affiant: Darcy A. Paul (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F) (Paul, Darcy) (Entered: 12/05/2007) |
| 12/06/2007 | <u>155</u> | ORDER REQUIRING RESPONSE to 149 Motion for Joinder. Response due by 12/12/2007 at NOON. Signed by Judge Arthur J. Schwab on 12/06/07. (eca) (Entered: 12/06/2007) |
| 12/06/2007 | <u>156</u> | ORDER granting 151 Motion for leave of Court to file documents under seal. It is hereby ORDERED that confidential exhibits A - C of UPitt's Motion to Join CMU shall be filed under seal. Signed by Judge Arthur J. Schwab on 12/06/07. (eca) (Entered: 12/06/2007) |
| 12/06/2007 | 157 | ORDER granting 152 Motion for leave of Court to file documents under seal. The following documents shall be SEALED: UPitt's Opposition to Defendant's Motion for SJ for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue Standing, Confidential and/or Attorney Eyes Only Exhibits to UPitt's Opposition, and UPitt's Responsive Statement of Material Disputed and Additional Facts in Support of its Opposition. Signed by Judge Arthur J. Schwab on 12/06/07. (eca) (Entered: 12/06/2007) |
| 12/06/2007 | 158 | SEALED DOCUMENT Exhibits A-C of UPitt's Motion to Join CMU by UNIVERSITY OF PITTSBURGH (ept) (Entered: 12/06/2007) |

| 12/06/2007 | 159 | SEALED DOCUMENT UPitt's Opposition to Defendant's Motion for SJ for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue Standing by UNIVERSITY OF PITTSBURGH. (ept) (Entered: 12/06/2007) |
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| 12/06/2007 | 160 | SEALED DOCUMENT Confidential and/or Attorney Eyes Only Exhibits A-F to UPitt's Opposition by UNIVERSITY OF PITTSBURGH (ept) (Entered: 12/06/2007) |
| 12/06/2007 | 161 | SEALED DOCUMENT UPitt's Responsive Statement of Material Disputed and Additional Facts in Support of its Opposition by UNIVERSITY OF PITTSBURGH. (ept) (Entered: 12/06/2007) |
| 12/12/2007 | <u>162</u> | RESPONSE to Motion re 149 MOTION for Joinder <i>Plaintiff University</i> of <i>Pittsburgh's Motion Pursuant to Federal Rule of Civil Procedure 19 to Join Carnegie Mellon University</i> filed by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Sneath, Henry) (Entered: 12/12/2007) |
| 12/12/2007 | <u>163</u> | EXHIBITS <i>A - F</i> in Support of <u>162</u> Response to Motion, by VARIAN MEDICAL SYSTEMS, INC (Sneath, Henry) (Entered: 12/12/2007) |
| 12/12/2007 | <u>164</u> | MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 12/12/2007) |
| 12/13/2007 | <u>165</u> | ORDER granting 164 Motion for Leave to File Documents under Seal. The following documents shall be filed under seal: (1) Varian's Motion for Leave to File Reply Memorandum in Support of its Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing and (2) Varian's Response to Plaintiff University of Pittsburgh's Responsive Statement of Material Disputed and Additional Facts in Support of Opposition to Defendant Varian Medical Systems, Inc's Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing. Signed by Judge Arthur J. Schwab on 12/13/07. (eca) (Entered: 12/13/2007) |
| 12/13/2007 | 166 | SEALED MOTION for Leave to File Reply Memorandum in Support of its Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing by VARIAN MEDICAL SYSTEMS, INC. (Attachment # Reply Memorandum in Support of Summary Judgment Attachment # Proposed Order) added on 12/14/2007 (ept) (Entered: 12/13/2007) |
| 12/13/2007 | 167 | SEALED DOCUMENT Response to "Plaintiff University of Pittsburgh's Responsive Statement of Material Disputed and Additional Facts in Support of Opposition to Defendant Varian Medical Systems, Inc.'s Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing" by VARIAN MEDICAL SYSTEMS, INC. (ept) (Entered: 12/13/2007) |
| 12/14/2007 | <u>168</u> | ORDER denying 149 Motion for Joinder. Signed by Judge Arthur J. |

| | | Schwab on 12/14/07. (ms) (Entered: 12/14/2007) |
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| 12/14/2007 | | TEXT ORDER denying 166 Sealed Motion for Leave to File Reply Memorandum in Support of its Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing without prejudice for failure to attach a proposed order. Signed by Judge Arthur J. Schwab on 12/14/07. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 12/14/2007) |
| 12/14/2007 | 169 | SEALED MOTION for Leave to File Reply Memorandum in Support of its Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Proposed Order # Reply Memorandum in Support of Motion for Summary Judgment) (ept) (Entered: 12/14/2007) |
| 12/14/2007 | <u>170</u> | DECLARATION of Shannon M. Clougherty Regarding the Filing of Varian's Motion for Leave to File Reply Memorandum in Support of its Motion for Summary Judgment for Lackof Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing by VARIAN MEDICAL SYSTEMS, INC (Clougherty, Shannon) (Entered: 12/14/2007) |
| 12/17/2007 | 171 | ORDER granting 169 SEALED MOTION for Leave to File Reply Memorandum in Support of its Motion for Summary Judgment for Lack of Standing, or in the Alternative, Motion for a Preliminary Hearing on the Issue of Standing by VARIAN MEDICAL SYSTEMS, INC. Varian shall file its Reply Memorandum in the form attached as Exhibit 1 to the Motion on or before Noon of December 18, 2007. Signed by Judge Arthur J. Schwab on 12/17/07. (eca) (Entered: 12/17/2007) |
| 12/17/2007 | 172 | SEALED DOCUMENT Reply Memorandum in Support of Motion for Summary Judgment by VARIAN MEDICAL SYSTEMS, INC. (ept) (Entered: 12/17/2007) |
| 12/19/2007 | <u>173</u> | AMENDED DOCUMENT by VARIAN MEDICAL SYSTEMS, INC Amendment to 172 Sealed Document (Amended Certificate of Service). (Clougherty, Shannon) (Entered: 12/19/2007) |
| 01/17/2008 | <u>174</u> | Unopposed MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC. (Liu, Zheng) Modified on 1/18/2008 (ept). (Entered: 01/17/2008) |
| 01/17/2008 | 175 | MOTION to Seal <i>Defendant's Certification that Opposing Parties Do Not Object to Defendant's Motion for Leave to File Documents Under Seal</i> by VARIAN MEDICAL SYSTEMS, INC. (Liu, Zheng). This document terminated and removed from public view. It was redocketed at 177. Modified on 1/18/2008 (ept). (Entered: 01/17/2008) |
| 01/17/2008 | <u>176</u> | Proposed Order re 174 MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC. (Liu, Zheng) Modified on 1/18/2008 (ept). (Entered: 01/17/2008) |

| 01/18/2008 | 177 | NOTICE of Defendant's Certification that Opposing Parties do not Object to Motion for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC. re 174 MOTION for Leave to File Documents Under Seal. (ept) (Entered: 01/18/2008) |
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| 01/18/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 175 MOTION to Seal Defendant's Certification that Opposing Parties Do Not Object to Defendant's Motion for Leave to File Documents Under Seal. ERROR: Wrong event selected. CORRECTION: Re-docketed as NOTICE of Defendant's Certification that Opposing Parties do not Object to Defendant's Motion for Leave to File Documents Under Seal. This message is for informational purposes only. (ept) (Entered: 01/18/2008) |
| 01/18/2008 | <u>178</u> | ORDER granting 174 Motion for Leave to File Documents Under Seal. Signed by Judge Arthur J. Schwab on 01/18/08. (eca) (Entered: 01/18/2008) |
| 01/18/2008 | <u>179</u> | Unopposed Supplemental MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Liu, Zheng) Modified on 1/22/2008 (ept). (Entered: 01/18/2008) |
| 01/18/2008 | <u>180</u> | NOTICE of <i>Defendant's Certification that Opposing Parties Do Not Object to Defendant's Supplemental Motion For Leave to File Documents Under Seal</i> by VARIAN MEDICAL SYSTEMS, INC. re 179 MOTION to Seal <i>Unopposed</i> Supplemental MOTION for Leave to File Documents Under Seal (Liu, Zheng) (Entered: 01/18/2008) |
| 01/22/2008 | <u>181</u> | ORDER granting 179 Motion for Leave to File Documents under Seal. Signed by Judge Arthur J. Schwab on 01/20/08. (eca) (Entered: 01/22/2008) |
| 01/22/2008 | 182 | DECLARATION of Zheng Liu in Support of Motion to Compel Production of Documents in Response to Varian's Second Request for Production of Documents and Document Subpoenas by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit C # 2 Exhibit D # 3 Exhibit E # 4 Exhibit J # 5 Exhibit K # 6 Exhibit L # 7 Exhibit M # 8 Exhibit N # 9 Exhibit O # 10 Exhibit P # 11 Exhibit Q # 12 Exhibit R # 13 Exhibit S # 14 Exhibit T # 15 Exhibit U # 16 Exhibit V # 17 Exhibit W # 18 Exhibit X # 19 Exhibit Y # 20 Exhibit Z # 21 Exhibit AA # 22 Exhibit BB # 23 Exhibit CC # 24 Exhibit DD # 25 Exhibit EE # 26 Exhibit FF # 27 Exhibit GG # 28 Exhibit HH # 29 Exhibit II # 30 Exhibit JJ) (Liu, Zheng) (Entered: 01/22/2008) |
| 01/22/2008 | <u>183</u> | MOTION to Compel Dr. Andre Kalend to Re-Produce Documents in an Intelligible Manner by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Liu, Zheng) (Entered: 01/22/2008) |
| 01/22/2008 | 184 | NOTICE <i>Discovery Dispute Certificate Pursuant to L.R. 37.1</i> by VARIAN MEDICAL SYSTEMS, INC. re 183 MOTION to Compel Dr. Andre Kalend to Re-Produce Documents in an Intelligible Manner (Liu, Zheng). This document removed from public view and redocketed at 189 Modified on 1/23/2008 (ept). (Entered: 01/22/2008) |

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| <u>185</u> | DECLARATION re 183 MOTION to Compel Dr. Andre Kalend to Re-Produce Documents in an Intelligible Manner, 184 Notice (Other) of <i>Zheng Liu in Support of Varian Medical Systems, Inc.'s Motion to Compel Dr. Andre Kalend to Reproduce Documents in an Intelligible Manner</i> by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit C # 3 Exhibit D # 4 Exhibit E # 5 Exhibit F # 6 Exhibit J # 7 Exhibit K # 8 Exhibit L # 9 Exhibit M # 10 Exhibit N # 11 Exhibit O # 12 Exhibit P # 13 Exhibit Q # 14 Exhibit R) (Liu, Zheng) (Entered: 01/22/2008) |
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| <u>186</u> | MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Liu, Zheng) (Entered: 01/22/2008) |
| 187 | NOTICE Discovery Dispute Certificate Pursuant to L.R. 37.1 by VARIAN MEDICAL SYSTEMS, INC. re 186 MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions (Liu, Zheng). This document removed from public view and redocketed at 190. Modified on 1/23/2008 (ept) (Entered: 01/22/2008) |
| 188 | DECLARATION re 187 Notice (Other), Notice (Other), 186 MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions of Zheng Liu in Support of Varian's Motion to Compel Additional Deposition Time From Certain Witnesses by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L # 13 Exhibit M # 14 Exhibit O # 15 Exhibit P # 16 Exhibit Q # 17 Exhibit R # 18 Exhibit S # 19 Exhibit T # 20 Exhibit U # 21 Exhibit V # 22 Exhibit EE # 23 Exhibit FF # 24 Exhibit GG # 25 Exhibit HH # 26 Exhibit II # Exhibit LL # 28 Exhibit NN # 29 Exhibit OO # 30 Exhibit PP # 31 Exhibit QQ # 32 Exhibit RR # 33 Exhibit SS # 34 Exhibit TT # 35 Exhibit UU # 36 Exhibit VV # 37 Exhibit WW # 38 Exhibit XX) (Liu, Zheng) (Entered: 01/22/2008) |
| 192 | SEALED MOTION to Compel Production of Documents Responsive to Varian's Second Request for Production of Documents and Document Subpoenas (192 Motion) by VARIAN MEDICAL SYSTEMS, INC (Attachments: # Proposed Order # Exhibit A # Exhibit B # Exhibit F # Exhibit G # Exhibit H # Exhibit I) (ept) (Entered: 01/23/2008) |
| 193 | SEALED DOCUMENT - Exhibits in Support of 186 by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Exhibit N # Exhibit W # Exhibit X # Exhibit Y # Exhibit Z # Exhibit AA # Exhibit BB # Exhibit CC # Exhibit DD # Exhibit JJ # Exhibit KK # Exhibit MM) (ept) Modified on 1/23/2008 to correct document linkage (ept). (Entered: 01/23/2008) |
| | 186 187 188 |

| 01/22/2008 | 194 | SEALED DOCUMENT - Exhibits in support of 185 by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Exhibit B # Exhibit G # Exhibit H # Exhibit I # Exhibit S # Exhibit T # Exhibit F) (ept) (Entered: 01/23/2008) |
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| 01/23/2008 | <u>189</u> | DISCOVERY DISPUTE CERTIFICATE by VARIAN MEDICAL SYSTEMS, INC. re 183 MOTION to Compel Dr. Andre Kalend to Re-Produce Documents in an Intelligible Manner. (ept) (Entered: 01/23/2008) |
| 01/23/2008 | <u>190</u> | DISCOVERY DISPUTE CERTIFICATE by VARIAN MEDICAL SYSTEMS, INC. re 186 MOTION to Compel Additional Deposition Time. (ept) (Entered: 01/23/2008) |
| 01/23/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 187 Notice (Other), Notice (Other), 184 Notice (Other). ERROR: Wrong event selected. CORRECTION: Re-docketed as Discovery Dispute Certificates. This message is for informational purposes only. (ept) (Entered: 01/23/2008) |
| 01/23/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 188 Declaration, 182 Declaration, 185 Declaration. ERROR: Typed name omitted by s/. CORRECTION: Attorney advised of signature requirements. Attorney to resubmit with signature, using Errata event. This message is for informational purposes only. (ept) (Entered: 01/23/2008) |
| 01/23/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 186 MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions. ERROR: Signature on document and filer do not match. CORRECTION: Attorney advised of signature requirements. Attorney to resubmit the document using the Errata event. This message is for informational purposes only. (ept) (Entered: 01/23/2008) |
| 01/23/2008 | | ORDER REQUIRING RESPONSE to 186 Motion to Compel. Response to Motion due by 1/28/2008 at NOON. Signed by Judge Arthur J. Schwab on 01/23/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 01/23/2008) |
| 01/23/2008 | <u>191</u> | Errata re 186 MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions by VARIAN MEDICAL SYSTEMS, INC Reason for Correction: Signature on document and filer did not match. (Liu, Zheng) (Entered: 01/23/2008) |
| 01/23/2008 | <u>195</u> | Errata re 182 Declaration, by VARIAN MEDICAL SYSTEMS, INC. Reason for Correction: Incomplete signature. (Liu, Zheng) (Entered: 01/23/2008) |
| 01/23/2008 | <u>196</u> | Errata re 185 Declaration, by VARIAN MEDICAL SYSTEMS, INC. Reason for Correction: Incomplete signature. (Liu, Zheng) (Entered: |

| | | 01/23/2008) |
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| 01/23/2008 | <u>197</u> | Errata re 188 Declaration, by VARIAN MEDICAL SYSTEMS, INC. Reason for Correction: Incomplete signature. (Liu, Zheng) (Entered: 01/23/2008) |
| 01/23/2008 | <u>198</u> | Ex Parte MOTION to Strike <u>188</u> Declaration, <u>197</u> Errata by UNIVERSITY OF PITTSBURGH. (Attachments: # <u>1</u> Exhibit A # <u>2</u> Exhibit B # <u>3</u> Proposed Order) (Tautkus, Rita) (Entered: 01/23/2008) |
| 01/24/2008 | | ORDER REQUIRING RESPONSE to 183 Motion to Compel. Response to Motion due by 1/28/2008. Signed by Judge Arthur J. Schwab on 01/24/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 01/24/2008) |
| 01/24/2008 | | ORDER REQUIRING RESPONSE to 192 Sealed Motion and 198 Motion to Strike. Responses to Motions due by 1/28/2008 at NOON. Signed by Judge Arthur J. Schwab on 01/24/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 01/24/2008) |
| 01/24/2008 | <u>199</u> | RESPONSE to Motion re 198 Ex Parte MOTION to Strike 188 Declaration, 197 Errata filed by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Proposed Order) (Clougherty, Shannon) Modified on 1/25/2008 to name attachment (ept). (Entered: 01/24/2008) |
| 01/25/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 199 Response to Motion. ERROR: Attachment not described correctly or no description was provided. CORRECTION: Attachment description corrected. This message is for informational purposes only. (ept) (Entered: 01/25/2008) |
| 01/27/2008 | 200 | MOTION for Leave of Court to File document under seal by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) Modified on 1/28/2008 (ept). (Entered: 01/27/2008) |
| 01/27/2008 | 201 | DISCOVERY DISPUTE CERTIFICATE by UNIVERSITY OF PITTSBURGH re 200 MOTION for Leave to File <i>PLAINTIFF UNIVERSITY OF PITTSBURGH'S MOTION FOR LEAVE OF COURT TO FILE DOCUMENT UNDER SEAL</i> . (Tautkus, Rita). This document removed from public view and redocketed at 210 Modified on 1/28/2008 (ept). (Entered: 01/27/2008) |
| 01/27/2008 | <u>202</u> | Dr. Andre Kalend's Opposed MOTION for Leave of Court to File Document Under Seal by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) Modified on 1/28/2008 (ept). (Entered: 01/27/2008) |
| 01/27/2008 | <u>203</u> | DISCOVERY DISPUTE CERTIFICATE by UNIVERSITY OF PITTSBURGH re 202 Dr. Andre Kalend's Opposed MOTION for Leave of Court to File Document Under Seal (Tautkus, Rita). Modified on 1/28/2008 (ept). (Entered: 01/27/2008) |
| 01/28/2008 | <u>204</u> | BRIEF in Opposition re 183 MOTION to Compel Dr. Andre Kalend to |

| | | Re-Produce Documents in an Intelligible Manner NON-PARTY DR. ANDRE KALEND'S OPPOSITION TO DEFENDANT VARIAN MEDICAL SYSTEMS, INC.'S MOTION TO COMPEL DR. ANDRE KALEND TO RE-PRODUCE DOCUMENTS IN AN INTELLIGIBLE MANNER filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 01/28/2008) |
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| 01/28/2008 | 205 | DECLARATION re 204 Brief in Opposition to Motion, DECLARATION OF RITA E. TAUTKUS IN SUPPORT OF PLAINTIFF'S OPPOSITION TO DEFENDANT VARIAN MEDICAL SYSTEMS, INC.'S MOTION TO COMPEL DR. ANDRE KALEND TO RE-PRODUCE DOCUMENTS IN AN INTELLIGIBLE MANNER by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A) (Tautkus, Rita) (Entered: 01/28/2008) |
| 01/28/2008 | 206 | MOTION for Leave to File <i>PLAINTIFF UNIVERSITY OF PITTSBURGH'S OPPOSED MOTION FOR LEAVE OF COURT TO FILE DOCUMENTS UNDER SEAL</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 01/28/2008) |
| 01/28/2008 | 207 | DISCOVERY DISPUTE CERTIFICATE by UNIVERSITY OF PITTSBURGH re 206 MOTION for Leave to File <i>PLAINTIFF UNIVERSITY OF PITTSBURGH'S OPPOSED MOTION FOR LEAVE OF COURT TO FILE DOCUMENTS UNDER SEAL</i> . (Tautkus, Rita) (Entered: 01/28/2008) |
| 01/28/2008 | <u>208</u> | BRIEF in Opposition re 192 SEALED MOTION to Compel Production of Documents Responsive to Varian's Second Request for Production of Documents and Document Subpoenas ('192 Motion) filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) Modified on 1/29/2008. (ept) (Entered: 01/28/2008) |
| 01/28/2008 | 209 | DECLARATION of Rita E. Tautkus in Support of 208 Plaintiff's Opposition to Defendant Varian Medical Systems, Inc.'s Motion to Compel Production of Documents Responsive to Varian's Second Request for Production of Documents and Document Subpoenas (' 192 Motion) by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D) (Tautkus, Rita) Modified on 1/29/2008 to add document linkage. (ept) (Entered: 01/28/2008) |
| 01/28/2008 | 210 | NOTICE of Plaintiff's Certification that Defendant does not object to Plaintiff's Motion for Leave to File Document Under Seal by UNIVERSITY OF PITTSBURGH re 200 MOTION for Leave of Court to File Document Under Seal. (ept) (Entered: 01/28/2008) |
| 01/28/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 201 Discovery Dispute Certificate. ERROR: Wrong event selected. CORRECTION: Redocketed as Plaintiff's Certification that Defendant does not object to Plaintiff's Motion for Leave to File Document Under Seal at 210. This message is for informational purposes only. (ept) (Entered: 01/28/2008) |
| 01/28/2008 | <u>211</u> | Redacted BRIEF in Opposition re 186 MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document |

| | | Production and Improper Instructions Not to Answer Questions filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) Modified on 1/28/2008 (ept). Modified on 1/29/2008 (ept). (Entered: 01/28/2008) |
|------------|------------|--|
| 01/28/2008 | 212 | DECLARATION of Rita E. Tautkus in Support of 211 Plaintiff's Opposition to Defendant Varian Medical Systems, Inc.'s Motion to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L # 13 Exhibit M # 14 Exhibit N) (Tautkus, Rita) Modified on 1/29/2008 to add document linkage (ept). (Entered: 01/28/2008) |
| 01/28/2008 | 213 | BRIEF in Opposition re 192 SEALED MOTION, 186 MOTION to Compel Additional Deposition Time from Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions filed by ECKERT SEAMANS CHERIN & MELLOTT, LLC. (Kenrick, John) (Entered: 01/28/2008) |
| 01/28/2008 | 214 | ORDER granting 202 Motion for Leave of Court to File Document Under Seal. Signed by Judge Arthur J. Schwab on 1/28/08. (ms) (Entered: 01/28/2008) |
| 01/28/2008 | <u>215</u> | ORDER granting 200 Motion for Leave of Court to File Document Under Seal. Signed by Judge Arthur J. Schwab on 1/28/08. (ms) (Entered: 01/28/2008) |
| 01/28/2008 | 216 | SEALED DOCUMENT - Exhibit A to 205 Declaration by UNIVERSITY OF PITTSBURGH (ept) (Entered: 01/28/2008) |
| 01/28/2008 | 217 | SEALED DOCUMENT - Exhibit N to 212 Declaration by UNIVERSITY OF PITTSBURGH (ept) (Entered: 01/28/2008) |
| 01/29/2008 | 218 | ORDER granting 206 Motion for Leave to File Documents under Seal. The following documents shall be filed under seal on or before NOON of 01/29/08: Excerpts from the deposition transcript of Dr. Kalend, Excerpts from the deposition transcript of Dr. Greenberger dated 09/21/07 and 10/24/07, and an Unredacted version of University of Pittsburgh's Opposition to Defendant's Motion to Compel, including exhibits i, ii, and iii. Signed by Judge Arthur J. Schwab on 01/29/08. (eca) (Entered: 01/29/2008) |
| 01/29/2008 | 219 | ORDER denying 198 Motion to Strike Declaration of Zheng Liu in Support of Varian's Motion to Compel Additional Deposition Time from Certain Witnesses. It is further ORDERED that Exhibit LL to Liu's Declaration in Support of Varian's Motion to Compel Additional Deposition Time from Certain Witnesses filed at Document Nos. 188 and 197 shall be SEALED by the Clerk. Signed by Judge Arthur J. Schwab on 01/29/08. (eca) (Entered: 01/29/2008) |

| 01/29/2008 | <u>220</u> | MOTION for Leave to File Reply In Support of 183 Motion to Compel Dr. Andre Kalend To Re-Produce Documents in an Intelligible Manner by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Exhibit Reply # 2 Proposed Order) (Clougherty, Shannon) Modified on 1/30/2008 to add document linkage (ept). (Entered: 01/29/2008) |
|------------|------------|--|
| 01/29/2008 | 221 | SEALED DOCUMENT - Plaintiff's Opposition to Defendant Varian Medical Systems, Inc.'s 186 Motion to Compel Additional Deposition Time From Certain Witnesses Based on Late Document Production and Improper Instructions Not to Answer Questions by UNIVERSITY OF PITTSBURGH (Attachments: # Exhibit A # Exhibit G # Exhibit I # Exhibit K # Exhibit L # Exhibit M) (ept) (Entered: 01/29/2008) |
| 01/29/2008 | 222 | MOTION for Leave to File Reply in Support of Motion to Compel Production of Documents Responsive to Varian's Second Request for Production of Documents and Document Subpoenas (192 Motion) by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit Reply # 2 Proposed Order) (Clougherty, Shannon) (Entered: 01/29/2008) |
| 01/30/2008 | 223 | ORDER granting in part and denying in part 186 Motion to Compel Additional Deposition Time from Certain Witnesses. Counsel for Plaintiff are ORDERED to work with Defense Counsel so the depositions will be completed by 02/15/08. Signed by Judge Arthur J. Schwab on 01/29/08. (eca) (Entered: 01/30/2008) |
| 01/30/2008 | 224 | ORDER granting 183 Motion to Compel Dr. Kalend to Reproduce Documents in an Intelligible Manner. Dr. Kalend shall organize and reproduce his documents and Counsel for Dr. Kalend shall provide the reorganized documents to Counsel for Varian for inspection on or before 02/04/08, in Pittsburgh, PA. Signed by Judge Arthur J. Schwab on 01/29/08. (eca) (Entered: 01/30/2008) |
| 01/30/2008 | 225 | ORDER denying 192 Motion to Compel Production of Documents Responsive to Varian's Second Request for Production of Documents and Document Subpoenas as untimely and seeking irrelevant documents/material/information. Signed by Judge Arthur J. Schwab on 01/29/08. (eca) (Entered: 01/30/2008) |
| 01/30/2008 | | ORDER denying 220 Motion for Leave to File Reply in Support of Motion to Compel Dr. Kalend to Reproduce Documents in an Intelligible Manner; denying 222 Motion for Leave to File Reply in Support of Motion to Compel Production of Documents Responsive to Varian's Second Request for Production of Documents and Document Subpoenas. Signed by Judge Arthur J. Schwab on 01/30/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 01/30/2008) |
| 01/31/2008 | 226 | MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 01/31/2008) |
| 01/31/2008 | 227 | ORDER granting 226 Motion for Leave to File Documents Under Seal. Memorandum in Support of Defendant Varian Medical Systems, Inc's |

| | | Motion to Compel Plaintiff to Provide Further Discovery Responses and Produce Documents and for Sanctions, Motion to Compel Non-Parties to Produce Documents, Pages 258-261 from transcripts of depositions of Dr. Greenberger, and pages 7-10 and 24-29 from the transcript of the deposition of Al Ciocca shall be filed under seal. Signed by Judge Arthur J. Schwab on 01/31/08. (eca) (Entered: 01/31/2008) |
|------------|------------|--|
| 01/31/2008 | 228 | MOTION to Compel Plaintiff to Provide Further Discovery Responses and Produce Documents (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Poppe, Matthew) Modified on 2/1/2008 to correctly name attachment (ept). (Entered: 01/31/2008) |
| 01/31/2008 | <u>229</u> | Redacted BRIEF in Support re 228 MOTION to Compel Plaintiff to Provide Further Discovery Responses and Produce Documents (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) MOTION to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents filed by VARIAN MEDICAL SYSTEMS, INC. (Poppe, Matthew) Modified on 2/1/2008 (ept). (Entered: 01/31/2008) |
| 01/31/2008 | 230 | DECLARATION in Support re 228 of Matthew H. Poppe ISO Varian Medical Systems, Inc.'s (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F # 7 Exhibit G # 8 Exhibit H # 9 Exhibit I # 10 Exhibit J # 11 Exhibit K # 12 Exhibit L) (Poppe, Matthew) Modified on 2/1/2008 to add document linkage (ept). (Entered: 01/31/2008) |
| 01/31/2008 | 231 | EXHIBITS <i>M</i> , <i>N</i> , <i>O</i> , <i>P</i> , <i>Q</i> , <i>R</i> , <i>S</i> , <i>T</i> in Support of 230 Declaration, by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit M # 2 Exhibit N # 3 Exhibit O # 4 Exhibit P # 5 Exhibit Q # 6 Exhibit R # 7 Exhibit S # 8 Exhibit T) (Poppe, Matthew) (Entered: 01/31/2008) |
| 01/31/2008 | 232 | EXHIBITS <i>U</i> , <i>V</i> , <i>W</i> , <i>X</i> , <i>Y</i> , <i>Z</i> , <i>AA</i> , <i>BB</i> , <i>CC</i> , <i>DD</i> , <i>EE</i> , <i>FF</i> , <i>GG</i> , <i>HH</i> , <i>II</i> , <i>JJ</i> , <i>KK</i> , <i>LL</i> , <i>MM</i> , <i>OO</i> , <i>PP</i> , <i>QQ</i> , <i>RR</i> in Support of 230 Declaration, by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Exhibit U # 2 Exhibit V # 3 Exhibit W # 4 Exhibit X # 5 Exhibit Y # 6 Exhibit Z # 7 Exhibit AA # 8 Exhibit BB # 9 Exhibit CC # 10 Exhibit DD # 11 Exhibit EE # 12 Exhibit FF # 13 Exhibit GG # 14 Exhibit HH # 15 Exhibit II # 16 Exhibit JJ # 17 Exhibit KK # 18 Exhibit LL # 19 Exhibit MM # 20 Exhibit NN # 21 Exhibit OO # 22 Exhibit PP # 23 Exhibit QQ # 24 Exhibit RR) (Poppe, Matthew) (Entered: 01/31/2008) |
| 01/31/2008 | 233 | DISCOVERY DISPUTE CERTIFICATE by VARIAN MEDICAL |

| | | SYSTEMS, INC. re 228 MOTION to Compel Plaintiff to Provide Further Discovery Responses and Produce Documents (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel MOTION to Compel Plaintiff to Provide Further Discovery Responses and Produce Documents (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel. (Poppe, Matthew) (Entered: 01/31/2008) |
|------------|------------|--|
| 01/31/2008 | 234 | SEALED DOCUMENT - Memorandum in Support of 228 Motion to Compel by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Exhibit I # Exhibit N) (ept) (Entered: 02/01/2008) |
| 02/01/2008 | | ORDER Response/Briefing Schedule re 228 Motion to Compel, (Responses due by 2/7/2008 at Noon). Signed by Judge Arthur J. Schwab on 2/1/08 Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter.(ms) (Entered: 02/01/2008) |
| 02/06/2008 | <u>235</u> | Unopposed MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Clougherty, Shannon) (Entered: 02/06/2008) |
| 02/06/2008 | 236 | MOTION for Leave to File Amended Answer & Counterclaim by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Exhibit A # 2 Proposed Order) (Poppe, Matthew) Modified on 2/7/2008 to rename attachment (ept). (Entered: 02/06/2008) |
| 02/06/2008 | 237 | DECLARATION re 236 MOTION for Leave to File Amended Answer & Counterclaim by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit J # 6 Exhibit K # 7 Exhibit L # 8 Exhibit M # 9 Exhibit N # 10 Exhibit O # 11 Exhibit P # 12 Exhibit Q # 13 Exhibit S # 14 Exhibit T # 15 Exhibit U # 16 Exhibit V) (Poppe, Matthew) (Entered: 02/06/2008) |
| 02/06/2008 | 238 | MOTION for Leave of Court To File Documents Under Seal by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Paul, Darcy) (Entered: 02/06/2008) |
| 02/07/2008 | 239 | ORDER granting 235 Motion for Leave to File Documents under Seal. Signed by Judge Arthur J. Schwab on 02/07/08. (eca) (Entered: 02/07/2008) |
| 02/07/2008 | 240 | ORDER granting 238 Motion to File Documents Under Seal. Signed by Judge Arthur J. Schwab on 02/07/08. (eca) (Entered: 02/07/2008) |
| 02/07/2008 | 241 | BRIEF in Opposition re 228 MOTION to Compel Plaintiff to Provide Further Discovery Responses and Produce Documents (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents filed by UNIVERSITY OF |

| | | PITTSBURGH. (Attachments: # 1 Proposed Order) (Paul, Darcy) Modified on 2/8/2008 (ept). (Entered: 02/07/2008) |
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| 02/07/2008 | <u>242</u> | DECLARATION of Darcy A. Paul in Support of 241 Plaintiff University of Pittsburgh's Opposition to Varian Medical System Inc.'s (1) Motion to Compel Plaintiff University of Pittsburg to Provide further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C) (Paul, Darcy) Modified on 2/8/2008 to add document linkage (ept). (Entered: 02/07/2008) |
| 02/07/2008 | | ORDER REQUIRING RESPONSE to 236 Motion for Leave to File Amended Answer and Counterclaim. Response to Motion due by 2/14/2008 at NOON. Signed by Judge Arthur J. Schwab on 02/07/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 02/07/2008) |
| 02/07/2008 | 243 | SEALED DOCUMENT - Exhibits A-C in support of 241 Brief in Opposition by UNIVERSITY OF PITTSBURGH (ept) (Entered: 02/07/2008) |
| 02/07/2008 | 244 | SEALED MOTION for Leave to File Amended Answer and Counterclaim by VARIAN MEDICAL SYSTEMS, INC (Attachments: # Exhibit A # Exhibit E # Exhibit F # Exhibit G # Exhibit H # Exhibit I # Exhibit R # Proposed Order) (ept) (Entered: 02/07/2008) |
| 02/08/2008 | 245 | MOTION for Leave to File Reply in Support of (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions, and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogan to Produce Documents by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit # 2 Proposed Order) (Poppe, Matthew) (Entered: 02/08/2008) |
| 02/08/2008 | <u>246</u> | ORDER granting in part and denying in part 228 Motion to Compel. Signed by Judge Arthur J. Schwab on 2/8/08. (ms) (Entered: 02/08/2008) |
| 02/11/2008 | | ORDER denying as moot 245 Motion for Leave to File Reply in Support of (1) Motion to Compel Plaintiff University of Pittsburgh to Provide Further Discovery Responses and Produce Documents and for Sanctions and (2) Motion to Compel Non-Parties University of Pittsburgh Medical Center and Dr. Jeff Shogun to Produce Documents. Signed by Judge Arthur J. Schwab on 02/11/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 02/11/2008) |
| 02/11/2008 | | Minute Entry for proceedings held before Judge Arthur J. Schwab: Court overruled plaintiff's objections to deposition issue. (Court Reporter: K. Earley) (ms). (Entered: 02/11/2008) |
| | | |

| 02/14/2008 | <u>247</u> | MOTION to Seal Document by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Paul, Darcy) (Entered: 02/14/2008) |
|------------|------------|--|
| 02/14/2008 | 248 | RESPONSE to Motion re 244 SEALED MOTION for Leave to file Amended Answer and Counterclaim filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 02/14/2008) |
| 02/14/2008 | 249 | DECLARATION of Rita Tautkus in Support of 248 Plaintiff's Opposition to Varian Medical System Inc.'s Motion for Leave to File Ameneded Answer and Counterclaim by UNIVERSITY OF PITTSBURGH Affiant: Rita Tautkus (Attachments: # 1 Exhibit A) (Tautkus, Rita) Modified on 2/15/2008 to add document linkage (ept). (Entered: 02/14/2008) |
| 02/15/2008 | <u>250</u> | ORDER granting 247 Motion for Leave of Court to File Documents Under Seal. The deposition transcript of Mr. Richard Westerhoff, dated 10/03/07, at page 104, shall be filed under seal. Signed by Judge Arthur J. Schwab on 02/15/08. (eca) (Entered: 02/15/2008) |
| 02/15/2008 | <u>251</u> | SUPPLEMENTAL ORDER DENYING in part 228 MOTION to Compel as follows: UPMC and/or Dr. Shogan shall not be required to produce (1) a complete and unredacted copy of the email previously produced as VMSJES017, (2) a complete and unredacted copy of Greenberger memorandum previously produced as VMSJES009, and (3) complete and unredacted copies of other withheld documents listed in the letter from Al Ciocca, Esq. dated 08/24/07 and attached as Exhibit M to the Declaration of Matthew H. Poppe. Plaintiff's, UPMC's, and Dr. Shogan's objections to the production of said documents based on the attorney-client privilge, attorney work product doctrine, and/or common interest privilige are sustained. Mr. Ciocca shall retrieve from the Court the unredacted document delivered to the Court for incamera inspection on 02/14/08. Said retrieval shall occur on or before 02/21/08 from Deputy Clerk or other staff personnel. Signed by Judge Arthur J. Schwab on 02/15/08. (eca) (Entered: 02/15/2008) |
| 02/15/2008 | <u>252</u> | ORDER denying 236 Motion for Leave to File Amended Answer and Counterclaim. Signed by Judge Arthur J. Schwab on 02/15/08. (eca) (Entered: 02/15/2008) |
| 02/19/2008 | 253 | SEALED DOCUMENT - Deposition Transcript of Mr. Richard Westerhoff by UNIVERSITY OF PITTSBURGH (ept) (Entered: 02/19/2008) |
| 03/10/2008 | <u>254</u> | REPORT AND RECOMMENDATION of Special Master Ziegler on 3/8/08 re 127 SEALED MOTION filed by VARIAN MEDICAL SYSTEMS, INC. (ms) (Entered: 03/10/2008) |
| 03/10/2008 | | ORDER SETTING DEADLINE FOR OBJECTIONS to <u>254</u> Report and Recommendations of Special Master. Objections due by 3/18/2008 at NOON. Signed by Judge Arthur J. Schwab on 03/10/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 03/10/2008) |
| | | |

| 03/18/2008 | <u>255</u> | RESPONSE to <u>254</u> Special Master's Report and Recommendations filed by UNIVERSITY OF PITTSBURGH. (Tautkus, Rita) Modified on 3/19/2008 (ept). (Entered: 03/18/2008) |
|------------|------------|--|
| 03/18/2008 | <u>256</u> | OBJECTIONS to <u>254</u> Report and Recommendation <i>of Special Master Re: Motion for Summary Judgment for Lack of Standing.</i> (Attachments: # <u>1</u> Proposed Order) (Sneath, Henry) (Entered: 03/18/2008) |
| 03/18/2008 | <u>257</u> | DECLARATION of Henry M. Sneath in Support of 256 Defendant/Counterclaimant's Objections to Report & Recommendation of Special Master by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit F) (Sneath, Henry) Modified on 3/19/2008 to add document linkage (ept). (Entered: 03/18/2008) |
| 03/19/2008 | <u>258</u> | Unopposed MOTION for Leave to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Proposed Order) (Sneath, Henry) (Entered: 03/19/2008) |
| 03/19/2008 | 259 | MOTION for Leave Leave of Court to File Documents Under Seal by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Proposed Order) (Poppe, Matthew) Modified on 3/20/2008 to modify text (ept). (Entered: 03/19/2008) |
| 03/20/2008 | | ORDER: The parties are hereby directed to file reply briefs to 256 Objections to Report and Recommendation and 255 Response filed by UNIVERSITY OF PITTSBURGH by NOON on 3/26/2007. Reply briefs are not to exceed ten (10) pages. Signed by Judge Arthur J. Schwab on 03/20/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 03/20/2008) |
| 03/20/2008 | <u>260</u> | ORDER granting 258 Motion for Leave to File Documents under Seal. Signed by Judge Arthur J. Schwab on 03/20/08. (eca) (Entered: 03/20/2008) |
| 03/20/2008 | <u>261</u> | ORDER granting 259 Motion for Leave to File Documents under Seal. Signed by Judge Arthur J. Schwab on 03/20/08. (eca) (Entered: 03/20/2008) |
| 03/20/2008 | <u>262</u> | ORDER SETTING STATUS / SETTLEMENT CONFERENCE: A Status/Settlement Conference shall be held 03/28/08 at 8:00 AM. Chief trial counsel and chief decisionmakers shall attend in person and be prepared to discuss schedule, settlement, and further alternative dispute resolution options. By NOON on 03/26/08 each party shall submit brief confidential letters to the Court and a proposed settlement agreeement. Signed by Judge Arthur J. Schwab on 03/20/08. (eca) (Entered: 03/20/2008) |
| 03/20/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 259 Motion for Leave to File. ERROR: Signature on document and filer do not match. Attorney advised that in the future, the signature and filer on documents must match. This message is for informational purposes only. |

| | | (ept) (Entered: 03/20/2008) |
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| 03/20/2008 | 263 | MOTION for Sanctions <i>Pursuant to Rule 11 of the F.R.C.P. and/or 35 U.S.C. Section 285</i> by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Proposed Order) (Poppe, Matthew). This document terminated and redocketed at 267. Modified on 3/24/2008 (ept). (Entered: 03/20/2008) |
| 03/20/2008 | <u>264</u> | MOTION to Amend/Correct 263 MOTION for Sanctions <i>Pursuant to Rule 11 of the F.R.C.P. and/or 35 U.S.C. Section 285</i> by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Proposed Order) (Poppe, Matthew). This document has been terminated. Modified on 3/24/2008 (ept). (Entered: 03/20/2008) |
| 03/20/2008 | <u>265</u> | BRIEF in Support re 267 MOTION for Sanctions Pursuant to Rule 11 of the F.R.C.P. and/or 35 U.S.C. Section 285 filed by VARIAN MEDICAL SYSTEMS, INC. (Poppe, Matthew) Modified on 3/24/2008 to modify text(ept). (Entered: 03/20/2008) |
| 03/20/2008 | 266 | DECLARATION re 265 Brief in Support of Motion for Sanctions Pursuant to Rule 11 of the F.R.C.P. and/or 35 U.S.C. Section 285 by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A # 2 Exhibit B # 3 Exhibit C # 4 Exhibit D # 5 Exhibit E # 6 Exhibit I # 7 Exhibit J # 8 Exhibit K # 9 Exhibit M # 10 Exhibit S # 11 Exhibit T # 12 Exhibit U # 13 Exhibit V # 14 Exhibit X # 15 Exhibit Y # 16 Exhibit Z) (Poppe, Matthew) (Entered: 03/20/2008) |
| 03/20/2008 | <u>267</u> | MOTION for Sanctions Pursuant to Rule 11 of the F.R.C.P. and/or 35 U.S.C. Section 285 by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Proposed Order) (ept) (Entered: 03/24/2008) |
| 03/20/2008 | 268 | SEALED DOCUMENT - Memorandum in Support of <u>267</u> Motion for Sanctions by VARIAN MEDICAL SYSTEMS, INC. (ept) (Entered: 03/24/2008) |
| 03/20/2008 | 269 | SEALED DOCUMENT - Declaration in support of 267 Motion for Sanctions by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # Exhibit F # Exhibit G # Exhibit H # Exhibit L # Exhibit N # Exhibit O # Exhibit P # Exhibit Q # Exhibit R # Exhibit W # Exhibit AA) (ept) (Entered: 03/24/2008) |
| 03/21/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 264 Motion to Amend/Correct. ERROR: Wrong event selected. Filer should have used Errata event. CORRECTION: Motion to Amend 264 terminated. Motion for Sanctions 263 wrong document was attached. The motion is filed at 264. This message is for informational purposes only. (crw) (Entered: 03/21/2008) |
| 03/25/2008 | | ORDER SETTING DEADLINE FOR RESPONSE to <u>267</u> Motion for Sanctions. Response to Motion due by 3/27/2008 at NOON. Signed by Judge Arthur J. Schwab on 03/25/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 03/25/2008) |

| 03/26/2008 | 270 | MOTION for Leave to File <i>DOCUMENT UNDER SEAL</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 03/26/2008) |
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| 03/26/2008 | <u>271</u> | REPLY BRIEF by VARIAN MEDICAL SYSTEMS, INC. re 255 Response to Special Master's Report & Recommendations filed by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 03/26/2008) |
| 03/26/2008 | 272 | REPLY BRIEF by UNIVERSITY OF PITTSBURGH to 256 Objections to Report and Recommendation filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Appendix A) (Tautkus, Rita) Modified on 3/27/2008 to add proper document linkage (ept). (Entered: 03/26/2008) |
| 03/27/2008 | <u>273</u> | ORDER granting 270 Motion for Leave to File Documents Under Seal. Excerpts from the deposition transcripts designated as Confidential Attorney Eyes Only under the Protective Order entered in this matter shall be filed under seal. Signed by Judge Arthur J. Schwab on 03/27/08. (eca) (Entered: 03/27/2008) |
| 03/27/2008 | 274 | BRIEF in Opposition re 263 MOTION for Sanctions <i>Pursuant to Rule 11 of the F.R.C.P. and/or 35 U.S.C. Section 285</i> filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Johnson, Daniel) (Entered: 03/27/2008) |
| 03/27/2008 | <u>275</u> | OBJECTIONS to <i>PLAINTIFF'S ATTEMPT TO INTRODUCE NEW EVIDENCE</i> by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 03/27/2008) |
| 03/27/2008 | <u>276</u> | Errata re 275 Objections <i>TO PLAINTIFF'S ATTEMPT TO INTRODUCE NEW EVIDENCE</i> by VARIAN MEDICAL SYSTEMS, INC Reason for Correction: Wrong filer. (Liu, Zheng) (Entered: 03/27/2008) |
| 03/27/2008 | 277 | SEALED DOCUMENT - Appendix A to 256 Objections to Report and Recommendation by UNIVERSITY OF PITTSBURGH (ept) (Entered: 03/27/2008) |
| 03/27/2008 | 278 | MOTION for Leave to File Sur-Reply <i>TO ADDRESS NEW ARGUMENTS IMPROPERLY RAISED BY PLAINTIFF UNIVERSITY OF PITTSBURGH IN ITS REPLY TO VARIAN'S OBJECTIONS TO REPORT AND RECOMMENDATION</i> by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Exhibit 1 # 2 Exhibit 2) (Poppe, Matthew) Modified on 3/28/2008 to modify text (ept). (Entered: 03/27/2008) |
| 03/28/2008 | | ORDER granting <u>278</u> Motion for Leave to File sur-reply brief, without objection. Signed by Judge Arthur J. Schwab on 3/28/08. (mjl) (Entered: 03/28/2008) |
| 03/28/2008 | <u>279</u> | Minute Entry for proceedings held before Judge Arthur J. Schwab: Status Conference held on 3/28/2008. (Court Reporter: K. Earley) (mjl) (Entered: 03/28/2008) |

| 03/28/2008 | | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 275 Objections. ERROR: Signature on document and filer do not match. CORRECTION: Attorney advised of signature requirements. Attorney to resubmit the document using the Errata event. This message is for informational purposes only. (ept) (Entered: 03/28/2008) |
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| 03/28/2008 | | Remark: Clerk's Office inadvertently sent a Quality Control message regarding <u>275</u> . Attorney correctly refiled the document at <u>276</u> . (ept) (Entered: 03/28/2008) |
| 03/28/2008 | <u>280</u> | SUPERSEDING ORDER GRANTING 278 Motion for Leave to File Sur-Reply. The Sur-Reply shall be filed today on ECF. Signed by Judge Arthur J. Schwab on 03/28/08. (eca) (Entered: 03/28/2008) |
| 03/28/2008 | <u>281</u> | Sur-Reply Brief to Address New Arguments Raised by Plaintiff in its Reply to Varian's Objections to Report and Recommendation filed by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 03/28/2008) |
| 04/01/2008 | | ORDER REQUIRING RESPONSE to 275 Objections to Plaintiff's Attempt to Introduce New Evidence. Response due by 4/3/2008 at NOON. Signed by Judge Arthur J. Schwab on 04/01/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 04/01/2008) |
| 04/01/2008 | 282 | REVISED Minute Entry for proceedings held before Judge Arthur J. Schwab: Status Conference held on 3/28/2008. (Court Reporter: K. Earley) (mjl) (Entered: 04/01/2008) |
| 04/03/2008 | 283 | RESPONSE to Defendant's 275 Objections to Plaintiff's Attempt to Introduce New Evidence filed by UNIVERSITY OF PITTSBURGH. (Tautkus, Rita) Modified on 4/4/2008 to add document linkage (ept). (Entered: 04/03/2008) |
| 04/03/2008 | <u>284</u> | MOTION for Reconsideration re 282 Status Conference, 279 Status Conference of the Court's Finding of Contempt by UNIVERSITY OF PITTSBURGH. (Johnson, Daniel) (Entered: 04/03/2008) |
| 04/03/2008 | 285 | DECLARATION re <u>284</u> MOTION for Reconsideration re <u>282</u> Status Conference, <u>279</u> Status Conference <i>of the Court's Finding of Contempt</i> by UNIVERSITY OF PITTSBURGH. (Johnson, Daniel) (Entered: 04/03/2008) |
| 04/03/2008 | <u>286</u> | MOTION for Contempt Sanctions by VARIAN MEDICAL SYSTEMS, INC. (Attachments: # 1 Proposed Order) (Poppe, Matthew) Text modified on 4/4/2008 (ept). (Entered: 04/03/2008) |
| 04/03/2008 | <u>287</u> | DECLARATION of Matthew H. Poppe re 286 MOTION for Contempt Sanctions by VARIAN MEDICAL SYSTEMS, INC. (Poppe, Matthew) Text modified on 4/4/2008 (ept). (Entered: 04/03/2008) |
| 04/03/2008 | <u>288</u> | DECLARATION of Henry M. Sneath re 286 MOTION for Contempt Sanctions by VARIAN MEDICAL SYSTEMS, INC. (Poppe, Matthew) Text modified on 4/4/2008 (ept). (Entered: 04/03/2008) |

| 04/03/2008 | 289 | DECLARATION of Keith Askoff re 286 MOTION for Contempt Sanctions by VARIAN MEDICAL SYSTEMS, INC. (Poppe, Matthew) Text modified on 4/4/2008 (ept). (Entered: 04/03/2008) |
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| 04/04/2008 | | ORDER SETTING DEADLINE FOR RESPONSES to 286 Motion for Sanctions and 284 Motion for Reconsideration. Responses to these Motions are due by 4/8/2008 at NOON. Signed by Judge Arthur J. Schwab on 04/04/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 04/04/2008) |
| 04/08/2008 | 290 | RESPONSE to Motion re 284 MOTION for Reconsideration re 282 Status Conference, 279 Status Conference of the Court's Finding of Contempt filed by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit "A") (Sneath, Henry) (Entered: 04/08/2008) |
| 04/08/2008 | <u>291</u> | BRIEF in Opposition re 286 MOTION for Contempt Sanctions filed by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A # 2 Proposed Order) (Tautkus, Rita) Text modified on 4/9/2008 (ept). (Entered: 04/08/2008) |
| 04/08/2008 | 292 | DECLARATION of Laura Hillock in Support of Plaintiff's 291 Opposition to Varian's Motion for Contempt Sanctions 286 by UNIVERSITY OF PITTSBURGH. (Tautkus, Rita) Modified on 4/9/2008 to add document linkage (ept). (Entered: 04/08/2008) |
| 04/17/2008 | 293 | ORDER denying 284 Motion for Reconsideration; granting in part and denying in part 286 Motion for Sanctions. Signed by Judge Arthur J. Schwab on 4/17/08. (mjl) (Entered: 04/17/2008) |
| 04/30/2008 | | TEXT ORDER Upon consideration of Defendant's Objection to Plaintiff's Attempt to Introduce New Evidence (doc. no. 275) and Plaintiff's Response to Defendant's Objection to Plaintiff's Attempt to Introduce New Evidence (doc. no. 283), the Court overrules said objections. Text-only entry; no PDF document will issue. This text-only entry constitutes the Courts order or notice on the matter. Signed by Judge Arthur J. Schwab on 4/30/08. (ms) (Entered: 04/30/2008) |
| 04/30/2008 | | TEXT ORDER After consideration of defendant's Motion for Sanctions Pursuant to Rule 11 of the Federal Rules of Civil Procedure and/or 35 U.S.C. § 285 (doc. no. 267) and brief in support thereof (doc. no. 268), and Plaintiff University of Pittsburgh's Opposition to Defendant Varian Medical Systems, Inc.'s Motion for Sanctions Pursuant to Rule 11 of the Federal Rules of Civil Procedure and/or 35 U.S.C. § 285 (doc. no. 274), said Motion (doc. no. 267) is DENIED. Text-only entry; no PDF document will issue. This text-only entry constitutes the Court's order or notice on the matter. Signed by Judge Arthur J. Schwab on 4/30/08. (ms) (Entered: 04/30/2008) |
| 04/30/2008 | <u>294</u> | ORDER ADOPTING <u>254</u> Special Master's Report and Recommendations in part and Granting 127 Defendant's Motion for Summary Judgment for Lack of Standing. This civil action is dismissed with prejudice. The Clerk shall mark this CASE CLOSED. Signed by |

| | | Judge Arthur J. Schwab on 04/30/08. (eca) (Entered: 04/30/2008) | | |
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| 05/01/2008 | | Remark: E-mail notification to U.S. Patent and Trademark Office of case closing, with Order attached, was sent on 5/1/2008. (ept) (Entered: 05/01/2008) | | |
| 05/15/2008 | <u>295</u> | MOTION Requesting Entry Of Judgment by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Exhibit A, # 2 Exhibit B) (Tautkus, Rita) Text modified on 5/16/2008 (ept). (Entered: 05/15/2008) | | |
| 05/15/2008 | 296 | MOTION to Dismiss <i>Counterclaims without Prejudice and (2) for Entroof Final Judgment</i> by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit A, # 2 Exhibit B, # 3 Exhibit C, # 4 Exhibit I # 5 Exhibit E) (Poppe, Matthew) (Entered: 05/15/2008) | | |
| 05/15/2008 | <u>297</u> | Proposed Order re 296 MOTION to Dismiss <i>Counterclaims without Prejudice and (2) for Entry of Final Judgment</i> by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 05/15/2008) | | |
| 05/16/2008 | | w/ 296 MOTION for Entry of Judgment by VARIAN MEDICAL SYSTEMS, INC. (ept) (Entered: 05/16/2008) | | |
| 05/16/2008 | CLERK'S OFFICE QUALITY CONTROL MESSAGE re 296 Motion Dismiss. ERROR: MULTIPLE Relief Motion Filed as One Relief. CORRECTION: Attorney advised in future that Motions of this natural are to be filed using the Motion Event and choosing all the Reliefs requested by holding the Control Key down and clicking all the relief sought in said motion. Clerk of Court docketed Motion for Entry of Judgment. This message is for informational purposes only. (ept) (Entered: 05/16/2008) | | | |
| 05/19/2008 | 9/2008 ORDER Response/Briefing Schedule re 295 Motion for Judgm Motion to Dismiss - Responses due by 5/27/2008. Signed by Jack Arthur J. Schwab on 5/19/08. Text-only entry; no PDF docume issue. This text-only entry constitutes the Order of the Court on the matter. (ms) (Entered: 05/19/2008) | | | |
| 05/23/2008 | <u>298</u> | NOTICE of Appearance by Elizabeth Stroyd Windsor on behalf of UNIVERSITY OF PITTSBURGH (Windsor, Elizabeth) (Entered: 05/23/2008) | | |
| 05/27/2008 | <u>299</u> | BRIEF in Opposition re 295 Motion Requesting Entry of Judgment filed by VARIAN MEDICAL SYSTEMS, INC. (Poppe, Matthew) Text modified on 5/28/2008. (ept) (Entered: 05/27/2008) | | |
| 05/27/2008 | 300 | RESPONSE to Motion re 296 Motion to Dismiss, Motion for Entry of Judgment filed by UNIVERSITY OF PITTSBURGH. (Tautkus, Rita) Text modified on 5/28/2008. (ept) (Entered: 05/27/2008) | | |
| 05/30/2008 | 301 | Joint MOTION to Stay <i>Proceedings Pending Mediation</i> by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) (Entered: 05/30/2008) | | |
| 06/02/2008 | <u>302</u> | ORDER granting 301 Motion to Stay. All proceedings in this action, | | |

| | | except for Plaintiff's anticipated motion to purge itself of contempt, affidavit of compliance and the neutral's ADR Report are STAYED until 06/16/08. Signed by Judge Arthur J. Schwab on 06/02/08. (eca) (Entered: 06/02/2008) | |
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| 06/13/2008 | 303 | REPORT of Mediation: Settlement has not been reached. Amount of discovery conducted: None. For cases participating in the Court's ADR pilot project, the parties are reminded of their obligation to complete the ADR questionnaire and return same to the Clerk of Court within 5 days of the conclusion of the ADR process. The questionnaire can be accessed at www.pawd.uscourts.gov. Click on the ADR icon. Mediation session was held on 6/12/2008. (Byer, Robert) (Entered: 06/13/2008) | |
| 06/13/2008 | 304 | Errata re 303 Report of Mediation, by ROBERT L. BYER. Reason for Correction: Adding list of attendees. (Byer, Robert) (Entered: 06/13/2008) | |
| 06/13/2008 | <u>305</u> | MOTION to Purge Contempt Finding by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Tautkus, Rita) Text modified on 6/16/2008. (ept) (Entered: 06/13/2008) | |
| 06/13/2008 | <u>306</u> | DECLARATION re 305 MOTION Purge Contempt Finding by UNIVERSITY OF PITTSBURGH Affiant: Rita E. Tautkus. (Attachments: # 1 Exhibit A) (Tautkus, Rita) Text modified on 6/16/2008. (ept) (Entered: 06/13/2008) | |
| 06/13/2008 | 307 | RESPONSE to Motion re 305 Motion to Purge Contempt Finding filed by VARIAN MEDICAL SYSTEMS, INC. (Liu, Zheng) Text modified on 6/16/2008. (ept) (Entered: 06/13/2008) | |
| 06/16/2008 | <u>308</u> | ORDER granting 305 Motion to Purge Contempt. The Court thanks the parties and counsel for their good faith efforts in conducting a meaningful mediation conference. Signed by Judge Arthur J. Schwab on 06/16/08. (eca) (Entered: 06/16/2008) | |
| 06/16/2008 | 309 | ORDER granting 296 Motion to Dismiss Without Prejudice. Signed by Judge Arthur J. Schwab on 6/16/08. (mjl) Modified on 6/17/2008 to reflect "Without Prejudice." (eca) (Entered: 06/16/2008) | |
| 06/16/2008 | 310 | JUDGMENT in favor of Defendant Varian Medical Systems, Inc. and against Plaintiff University of Pittsburgh. Signed by Judge Arthur J. Schwab on 06/16/08. (eca) (Entered: 06/16/2008) | |
| 06/16/2008 | 311 | NOTICE OF APPEAL as to 310 Judgment by UNIVERSITY OF PITTSBURGH. Filing fee \$ 455, receipt number 03150000000000924422. The Clerk's Office hereby certifies the record and the docket sheet available through ECF to be the certified list in lieu of the record and/or the certified copy of the docket entries. The Transcript Purchase Order form will NOT be mailed to the parties. The form is available on the Court's internet site. (Tautkus, Rita) (Entered: 06/16/2008) | |

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| 06/20/2008 | | Remark: Certified copies of the docket sheet, judgment and notice of appeal mailed to the Federal Circuit Court of Appeals. (ept) (Entered: 06/20/2008) | |
|------------|------------|---|--|
| 06/20/2008 | 312 | BILL OF COSTS by VARIAN MEDICAL SYSTEMS, INC. in the amount of \$356,269.90 against University of Pittsburgh. (Poppe, Matthew) (Entered: 06/20/2008) | |
| 06/20/2008 | 313 | MOTION for Bill of Costs <i>ITEMIZATION OF COSTS ISO OF BILL OF COSTS</i> by VARIAN MEDICAL SYSTEMS, INC (Poppe, Matthew) (Entered: 06/20/2008) | |
| 06/20/2008 | 314 | DECLARATION re 312 Bill of Costs, 313 MOTION for Bill of Costs <i>ITEMIZATION OF COSTS ISO OF BILL OF COSTS DECLARATION OF MATTHEW H. POPPE ISO VARIAN'S BILL OF COSTS</i> by VARIAN MEDICAL SYSTEMS, INC (Attachments: # 1 Exhibit 1, # 2 Exhibit 2, # 3 Exhibit 3, # 4 Exhibit 4, # 5 Exhibit 5, # 6 Exhibit 6, # 7 Exhibit 7, # 8 Exhibit 8A, # 9 Exhibit 8B, # 10 Exhibit 8C, # 11 Exhibit 8D) (Poppe, Matthew) (Entered: 06/20/2008) | |
| 06/23/2008 | | ORDER SETTING DEADLINE FOR RESPONSE to 313 Motion for Bill of Costs. Response to Motion due by 7/3/2008 at NOON. Reply due by 7/8/2008 at NOON. Signed by Judge Arthur J. Schwab on 06/23/08. Text-only entry; no PDF document will issue. This text-only entry constitutes the Order of the Court or Notice on the matter. (eca) (Entered: 06/23/2008) | |
| 06/25/2008 | <u>315</u> | MOTION for attorney Richard J Johnson to Appear Pro Hac Vice, Filing fee \$ 40 Receipt # 031500000000000934105 by UNIVERSITY OF PITTSBURGH. (Attachments: # 1 Proposed Order) (Johnson, Richard) (Entered: 06/25/2008) | |
| 06/25/2008 | 316 | MOTION for attorney Roderick R. McKelvie to Appear Pro Hac Vice, Filing fee \$ 40 Receipt # 03150000000000934242 by UNIVERSITY OF PITTSBURGH. (McKelvie, Roderick) (Entered: 06/25/2008) | |
| 06/26/2008 | 317 | ORDER granting 315 Motion for Richard J. Johnson to Appear Pro Hac Vice. Attorney Johnson added. Signed by Judge Arthur J. Schwab on 06/26/08. (eca) (Entered: 06/26/2008) | |
| 06/26/2008 | <u>318</u> | ORDER granting 316 Motion for Roderick R. McKelvie to Appear Pro Hac Vice. Attorney McKelvie added. Signed by Judge Arthur J. Schwab on 06/26/08. (eca) (Entered: 06/26/2008) | |

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